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Edited by JAMES E. RUSSELL

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TEACHERS COLLEGE RECORD

VOL. XXI NOVEMBER, 1920 No. 5

A REASONABLE PLEA FOR THE CLASSICS*

By GONZALEZ LODGE

Professor of Latin and Greek, Teachers College

It is always a pleasure to address an audience of teachers for many reasons but particularly, from my point of view, because our very profession commits us to an attitude of unprejudiced fairness in regard to all questions. Those to whom the education of the young is entrusted are of necessity the most potent influences in forming their minds and their outlook on life. And in our form of government where everything must be settled by discussion and persuasion, our principle not only as citizens but as individuals must be, "Prove all things, hold fast to that which is good."

No one should minimize the importance of a careful weighing of the merits of every part of the curriculum through which the children of the nation are to be led. But of much greater importance is it that we should have as true a conception as possible of what the aim of our general educational system should be. For upon this aim will depend the curriculum and the choice and relative value of different subjects. In what I have to present to you I shall have regard, of course, to the high-school curriculum, except in so far as a part of it would naturally apply to that new experiment in our system, the so-called junior high school.

Only a comparatively small number of youth will go to college. To the vast majority the high school represents the highest reach of their education. The question at once arises: "What should be the main trend of the high-school training?" Up to a few years

*An address delivered at a meeting of the Maryland State Teachers Association, Ocean City, June 29, 1920.

ago there was substantial unanimity that this should be what is usually called "cultural." But during these last few years there has been a strong movement in favor of the "vocational" high school. This resulted first in the establishment of commercial high schools; later the technical school came into being, and so on. The line of cleavage between this new variety of training and the old has gradually come to be marked by the inclusion or exclusion of certain subjects, which have thus come to be looked upon as peculiar, particularly classics, although very recently there have been those who would build up what they call a *cultural* curriculum without the inclusion of the subjects which for centuries have been regarded as the foundation of all culture.

My subject this evening, then, is to see whether there is any reasonable basis for the inclusion of classical study in any well-rounded high-school curriculum.

It is generally admitted that the pre-collegiate training is and should be essentially developmental in its character, that is, it should be adapted to develop as far as possible the faculties of the child so as to enable him to meet intelligently the demands of his unfolding life. These demands will be manifold and various. Many have been inclined to direct their attention to the material demands of life, especially the means of livelihood. But the biblical precept, "Man shall not live by bread alone," was never more true than it is to-day, when the practical questions of existence are depending more and more upon the solution of problems which pertain almost entirely to the mind. We all live in a social and political organization, and our real problems are not those of labor and the procuring of bread and butter, but those of social and political relations, the solutions of which will carry with them the solutions of the material questions. Hence the education of the masses, if it is to be the solvent of all our ills, as so many confidently claim, must have its chief regard to the things of the mind, to habits of right thinking, of right acting, in a word, of right living. If this is true, and I believe you are all as fully convinced of it as I am, how far are the classics valuable in preparing for this end?

It is obvious that in the short time at my disposal, I cannot treat this subject from all angles. I shall therefore only draw your attention to the most important points in which classical

teaching seems to me to be valuable, without any serious attempt to discuss them. Most of my remarks will be confined to Latin, for obvious reasons.

Language is the great achievement of the human race. It above everything else marks the supremacy of man over the brute creation. It is the most potent influence in our lives to-day as it has always been in the past. As the instrument of communication of ideas, it is fundamentally essential in all human relations.

In the study of Latin the child usually makes his first acquaintance with language as a created instrument. Even if he begins with some other language, Latin usually gives him his first idea of the possibilities of speech and his first opportunity to get the full benefit of linguistic study.

In studying Latin one of the first demands is accuracy of observation. The very nature of an inflected language involves the closest attention to the variations in ending, which often affect only a single letter, if the exact meaning is to be discovered. Inaccurate observation means failure. The conditions under which a child learns his mother tongue unfortunately afford little opportunity for this kind of training. The early appeal is wholly to the ear, and the use of the eye only comes in at a later stage when the language has been already learned. In learning a modern European language appeal is indeed made to the eye, and thus some opportunity is provided for attention to form, but the large loss of their ancient inflections brings these languages more near to our own in their value for training the observation. In Latin, on the other hand, it is impossible to make any progress without constant practice in this important faculty, and a large amount of drill has to do with this alone.

But accuracy of observation would be of very slight value without accuracy of interpretation, which also involves accuracy of record, if frequently only mental record. In our ordinary intercourse, we consistently help out the inadequacy of expression in every possible way, before resorting to the question, "Do you mean?" Cases occur every day where one who has observed an action most intently is unable to report accurately what he has seen. Many of the disputes in courts concerning evidence turn upon the ability of a witness to report accurately

what he thinks he knows. It is also a matter of common knowledge that much litigation, especially in our courts of appeal, has to do with the interpretation of phrases which, if properly expressed, would have needed none. In the study of Latin, it is of small moment whether the student observes clearly, compared with whether he can record accurately and interpret correctly what he observes.

It thus appears that in the study of Latin, in addition to the strengthening of the memory,[1] a child has had developed his faculties of accurate observation, of accurate record, of accurate interpretation. Do I claim these advantages as the exclusive effect of classical training? By no means. For all of these advantages may be gained from other studies, even from those which make the smallest demands upon the mind. But in the case of most if not all other studies, especial attention must be paid to these results, if they are to be obtained, while in the study of the classics, they constitute the training itself; they are inevitable to a certain degree, even if they are not in the mind of the teacher in the classroom. The fact that each process requires active mental effort, as well as active exertion of the will in the case of the vast majority of pupils, instead of the merely passive mental attitude which appears in most kinds of reading, for example, may be one of the reasons why so many children find Latin distasteful, not to say difficult. The habit of fixed attention as Dean Briggs, of Harvard, termed it, and which he claimed was the distinguishing mark of classically trained freshmen as opposed to others, is not a habit which pupils acquire willingly. The difference may be likened to the difference between gaining physical strength by active exercise of one's muscles, and by massage. Many find massage much more pleasant.

The development of the habits we have just discussed should begin with the beginning of the study of Latin. But it is with the beginning of translation that perhaps the most vital advantage of the study becomes apparent. You have all heard over

[1] The learning of the forms makes a powerful demand upon the memory. I am aware that it has been the fashion to decry the cultivation of the memory, but my own experience has taught me that the memory can be strengthened by practice, and there is universal testimony to the value of a good memory. The learning of forms gives this practice in a way different from learning connected narrative.

and over again of the advantages of translation, and I imagine that many of you are sceptical. I will not weary you, therefore, by rehearsing the benefits claimed for it. The essential point is that the pupil in his first attempt to translate from a foreign language into the vernacular, begins to realize the difference between an idea and the way in which it is expressed, begins in a word to use language consciously. Perhaps the hardest thing in the teaching of English is to lead pupils to express themselves in more and more effective and elegant fashion. I know that many have been found to hold that, given an idea, the expression will come of itself, but we all know that the manner of expression of the street differs from that of the drawing room, and that the latter is more nearly our ideal. A dirty urchin can make his wants known in picturesque language, but we should hardly desire our President to address Congress in that manner, nor would we want the Bible written in that form. In fact the whole question here is the question of art and non-art. And this question is one of universal application.

You are all familiar with the great improvement in the tastes of our people regarding architecture during the last thirty years. We all know that the architecture of the 70's and 80's was atrocious; that the colonial form on the other hand was good. Yet we threw aside the colonial architecture for the atrocities of the latter part of the last century. What was the reason of this? It was because the ignorant, the uneducated, the devoid of natural taste had control of building. It is almost inconceivable, but there have been stories, and true stories too, of people painting old mahogany Chippendale or Sheraton pieces white, or disposing of them at a song in order to substitute the products of the jigsaw, upholstered in plush. We have fortunately passed through that stage and emerged into a period when all our educational influences are directed to raise the standard of taste in building.

The case is the same with regard to painting and sculpture. There are continually attempts on the part of the ignorant, the debased, the neurotic to introduce new styles in the fine arts. And it is true that our country, the whole land over, is dotted with monstrosities in the form of statues, busts, monuments of all kinds. We are perpetually apologizing for them, and on

investigation it would appear that the jury of award has usually been composed of untrained persons. But we are now coming to the trained art commissions, who take control of such things for the purpose of educating the public to an appreciation of what is good and what is bad in the fine arts; while our museums both small and great are steadily consigning to the cellar the poorer paintings and statuary that have been donated to them and exhibiting for the enjoyment and education of the people only that which meets the approval of the expert.

Yet people could and did live in comfort in the inartistic house and with inartistic furniture, and the country got along in spite of the hideous things masquerading as art with which it was disfigured. But we do not admit this as a justifiable argument for reverting to that period or practice.

Now an idea may be expressed in wood or in stone, or in oil, or in musical notes, or in words. We have a structure in every case. And as in the case of all other structure there has been steady and continuous effort to evolve a standard of perfection, so too in the use of words there has always been a form which has been regarded as good, and which people have striven to reach. We have such a form in English which we call "good English." It is best exemplified in the works of those who are designated the English Classics, and form the basis of what we call "good usage." There are not wanting, of course, people who maintain that the English of the newspaper is good enough for them, just as one of the most popular automobiles, one condemned by artists as showing no beauty of line at all, is perfectly satisfactory to thousands of users; but the mass of the good teachers of English hold fast to standard, just as there is a perpetual striving for greater beauty in new designs of automobiles.

We seem to have gotten a long distance away from our subject, but this is only apparently so, for I am making a plea for the support of all teachers of English, when I maintain that translation from a foreign language into English furnishes the best opportunity for training the pupil in what constitutes "good English." To most pupils the mere correction of their use of the vernacular so that it is grammatically sound is nearly all that English teaching means. But in translation the most important question is not, "What is its meaning?" but "How can the

meaning be *best* rendered into English?" I freely admit that many teachers of Latin have been and still are derelict in allowing all too much the hideous "translation English" which should shock every one. But that should not obscure the value of the practice. The very fact that such English is quite satisfactory to the pupil should rouse us to appreciate that the development of the "good" in the use of English is the most difficult as perhaps the most important problem that the teacher of English has to face.

The question might be asked: "Granted that translation is a valuable exercise, would not the study of a modern language be just as valuable for this purpose as an ancient?" This brings me to a matter of prime importance.

The only reading material available for the Latin classes is that of the highest literary value. Latin students are accustomed to begin their serious reading with Cæsar's *Commentaries on the Gallic War*. Many teachers have complained of this necessity and lamented that the ancients should not have written something adapted to school use. It is well known that the second or Cæsar year is the most difficult in the whole Latin course. To my way of thinking the absence of any reading matter of a trivial nature is a distinct advantage. For it must be emphasized that Cæsar's commentaries are not trivial. Leaving aside for the moment the fact that he is narrating the events of a war which was in very truth a turning point in the history of civilization, he did this in a way to warrant the extravagant praise of Cicero, one of the greatest critics of style that the world has seen. In fact, the *Commentaries on the Gallic War* are not only history but an artistic literary creation of the first rank; they form one of the great books of the world's progress. The very fact, then, that the early reading in studying a modern language is apt to be trivial, is a great point in favor of Latin. These ideas of Cæsar are worth while. They are expressed in an artistic fashion. When rendered, therefore, they should be rendered, if rendered correctly, into artistic English, in other words, into the high style. This does not mean a florid or ornate style, for Cæsar's style was not ornate, any more than a Doric temple is ornate. Simple, strong, pure English is the medium to reproduce the simple, strong, pure Latin in which Cæsar wrote. Teachers

know that a simple, strong, pure style is the most difficult to master; so the translation of Cæsar is a task worthy of the best efforts of both teacher and pupil.

This matter of style some may think to be beyond the capacity of the young. But this gives the young too little credit. They can be taught what is good in music, in art, in architecture; they respond to what is good in character, in action. The heroic is the ideal of human nature. The young respond readily to the heroic. Then why should they not respond to style when it is properly put before them? In fact many pupils will tell you that they like Cicero as well as Cæsar; and multitudes have liked Vergil. What they have liked in both has been, not the commonplace, but the unusual, the great, not merely in idea, but in the expression of it. I readily admit that Cicero had always an eye to his audience, that he prepared his speeches to be spoken. But as I have heard Cicero presented in a large number of class rooms, the very fact that he makes any impression at all is the best of proof of the enormous vitality of an utterance which swerved Cæsar from his settled political policy, and has come ringing down through twenty centuries of intervening years. But it rarely rings in the modern class room.

The value of treating Cæsar and Cicero as literature may be questioned by some, but certainly this view could not apply to the works of Vergil. His works are obviously literature, and he is universally recognized as one of the world's greatest authors. Why is it a pity that every high school pupil should not read Vergil? Not so much because the Æneid was the greatest achievement of the Roman genius; not so much because he was a very great poet; as because he was and is one of the world's most potent influences. All English literature has been permeated by him. His characters have become household words. During the whole of the Middle Ages he was the most impressive figure. The Æneid has had more influence morally than any book except the Bible. Both favorers and opponents of the early Christian church quoted Vergil. He was quoted as an oracle just as was the Bible. He was allegorized and regarded as a picture of the whole sum of human progress long before John Bunyan made allegory a household experience. The sixth book is one of the most important in a long series of apocalyptic books,

and has been regarded by many as equal to the Book of Revelation in its influence. The Æneid is also the interpretation of the Roman ideal. The Hebrew chant, "He hath put down the mighty from their seats and exalted those of low degree," is set forth as the divine mission of Rome upon the earth, as the basis for their greater mission to preserve justice and equity among the nations. Incidentally in reading Vergil many pupils get their first realizing sense of rhythm, of poetic imagery, of loftiness of expression, of the essential difference between poetry and prose, of the place of poetry in life.

All that I have said of these three great authors may be summed up in the idea that the pupil in studying their works should gain literary taste and some feeling for literary standards.

Another side of Cæsar and Cicero must not be left out of consideration, the political side. The time in which they lived was one of the most momentous in history. The Roman republic had had a life of approximately 500 years, a long term as national existences go. It had grown from the first tentative stumbling steps after the overthrow of the kings, through the period of robust youth, of vigorous maturity, and was now showing all the signs of senility and approaching dissolution. It had withstood the privations of poverty, the cruelties and overwhelming sufferings of war, the trials and tempests of continual internal strife, as the idea of democracy gradually grew and moulded the institutions of government—to yield finally to the deceitfulness of riches, the corruption of luxury, the debasing influence of the immigrant, the enervation of peace. It had grown great, while still small, in order to grow small when great. It had known the period when public office had been looked upon as a responsibility for service for which strict accountability must be exacted, to come later to the period when public leadership was regarded as a private opportunity. The old Romans felt that they must live for their country, the new Romans were convinced that they must live on their country. In a word, the greatest experiment in democratic government that the world thus far had seen was approaching its end. The republic was dying in order that out of its corruption should arise another period of tyranny, and the cycle of progress should begin again, which should lead through its various stages to other experiments in democratic government.

The progress of our own governmental experiment can be paralleled in minute detail in that of the Roman republic. Every problem that we have had to face was faced by the Romans. The solution that was reached then can be studied in its ultimate effects, and can thus teach its lesson to us. The decay of public morality, the use of money in elections, the overriding of the popular will by legal chicanery, the playing off of one branch of the government against another, the weakness of popular government in meeting a crisis, the assumption of autocratic power by the leader to whom the state was entrusted in moments of stress, the invisible government of bossism, the effects of overcrowding in cities as shown in the decay of social morality, the effects of a large floating and venal electorate, the evils of huge aggregations of people far from the food supplies, the surge of the rural population to the cities, and the consequent decay of agriculture in Italy, and manifold other evils with which we have to contend today, were experienced over a period of centuries by the Romans. We clamor nowadays for a course in citizenship in our schools; Rome furnishes all the exhibits. We ask for instruction in government; Rome provides all the problems. We would try to guess what the future has in store for a democracy; Rome gives us the clue. We would know what to do to preserve our country, as well as what to avoid doing; Rome gives us our answers. We would train our youth to guide our country to a higher career in the development and uplift of mankind; Rome tells us how we must use the experience of the past to be our guide for the future. Now the turning point, as I have said, in Roman history, is the first century before Christ, and the chief figure, both sinister and beneficent is Cæsar. A course in Roman history is not necessary to learn what I have enumerated; the period covered by high school Latin is all that is necessary.

We, as Americans, should have a particular interest in Cæsar for another reason, namely, his conquest of Gaul, because that made our existence in its present form possible. But for Cæsar's conquest of Gaul, we might have been as backward in our political development as the countries of the Central Empires. Cæsar's invasion of Britain was the beginning of civilization for Britain, and, by consequence, for ourselves; and the fact that the Roman influence never penetrated far into Germany may account even

now for the tremendous difference in political ideals that we experience upon crossing the Rhine. Cæsar's conquest of Gaul gave us our alphabet, our principles of law, our principles of government, our literary direction; in fact it was the responsible source of what we mean by "western civilization." The Germans give much importance to Cæsar for being the first to give accounts of the German tribes. How much more highly should we rate him when he is the real source of our life and our views of life? Looked at in this way, the war for the conquest of Gaul was more than a mere war of conquest; it was the birth of a new life.

In connection with Cicero, but more definitely, of course, in connection with Vergil, comes the opportunity to become acquainted with the artistic work of the classical peoples. Our editions are now full of illustrations, and there are actually special books devoted to illustrating the school classics. It would be well, to be sure, if every child could have a course in the history of art, but since this is not possible, what better can we do than to draw attention in his other studies to the achievements of the greatest artists of antiquity, those who set up the standards which are still the standards unto this day. Here Greece has, of course, the preeminence, but what Greece did Rome appropriated and through Rome it came to us. Our Capitol at Washington is but the greatest of a myriad of buildings throughout our country, which show the dominance of the Greco-Roman ideals of building. All training in sculpture, too, goes back to the Greek masterpieces. No museum is complete without casts of what remains, and the aspiring spirit still goes to them for inspiration, for guidance, and for models.

I come now to a point that has been much discussed in recent years, the dependence of English upon Latin. Latin influence upon English began with the invasions of Britain by Julius Cæsar, and has continued up to the present day with increasing intensity. There have been in brief four periods: (1) From the conquest of Britain to the overthrow of the Western Empire, the period when Britain was having to a certain degree the experience of Gaul and Spain. Roman influence was direct and dominating and extended in language as far as the Britons could assimilate Roman ideas and habits. The new words came with the new ideas. (2) The Norman conquest when the English

tongue suffered a large admixture of French words, which were themselves but decayed Latin. (3) The literary period, when English writers from Elizabeth to Anne designedly introduced an immense number of words directly from the Latin for the purpose of enriching the ordinary speech. (4) The modern or scientific period, when recourse is had to Greek and Latin to give a name to every novelty that appears. The result of this continual borrowing is that the language that masquerades under the name English is almost as much Latin as is Italian or French, with a strong flavoring of Greek. Ignorance is prone to refer to the past with a fine air of condescension for the vagaries of the present. How often have I seen and heard opponents of spelling reform exclaim, "The spelling of Shakespeare is good enough for me," when we all know that if they were set to read their Shakespeare in the form in which Shakespeare spelled, a cry for help would soon pierce our ears. So too, how often has the expression "good old Anglo-Saxon" been used to cast opprobrium upon such words as may have had their origin in Greek or Latin! Whereas we all know that if our language were ruthlessly pruned to the Anglo-Saxon elements, we should be able to communicate with each other scarcely so well as the animals in the Zoo. Our Anglo-Saxon advocate would even be bereft of a mind with which to make a pretence of thinking, though, of course, not of a mouth with which to go on eating and drinking. Seriously, the Anglo-Saxon element ceased to grow in English after the Roman conquest, and hence represents the civilization of the primitive barbarian who opposed to Cæsar's legions his scythe-armed chariots; in brief, the civilization of our American Indians when Columbus landed. Everything that pertains to the mental and spiritual side of man has been borrowed, and much that pertains to the physical. Medicine, law and theology, science and business use a language that is Greek and Latin. Men fight and die for Greek and Latin words. Liberty, the word that has turned the world upside down more than once is Latin, while its antithesis, Tyranny, for which men have also fought and died is Greek. Even the tyranny of the labor union is expressed not in English, but in Greek and Latin. (Can that be one of the reasons why the labor unions in England are demanding a classical education for their children?) A century and a half ago, a new

people issued to the world a new charter of Freedom, a declaration of independence. Our Anglo-Saxon friend, if living then, would have been fighting for the following:

When in the ——— of ——— ———s, it becomes ——— for one ——— to ——— the ——— bands which have ———ed them with another and to ——— among the ———s of the earth the ——— and ——— ——— to which the ———s of ——— and of ———s God ——— them, a ——— ——— for the ———s of mankind ——— that they should ——— the ——— which ———s them to the ———.

Or would he really have been willing to fight for that? and would such an utterance have shaken thrones?

During the last year a certain branch of our government which we will call "blank" has been fighting with another branch of our government which we will call "blank," over a matter which we may call "the blank of blanks." This is soul-satisfying, is it not? Why, we could not even get a name for our country except from the Latin, and bad Latin at that. There is no new disease but what goes to the classical tongues for its name; there is hardly a new business device but what does the same thing. The newest material for raincoats is actually called aquascutum (a wrong formation, by the way), and no new tooth-powder is ready for the market, and no new germ is ready for business without a classical title.

Since this is true, we might at least ask that the borrowers borrow their borrowings properly, and that knowledge yield not to ignorance because the ignorant are content. Two recent examples are illuminating on this point. Greek has a termination *–istes*, Latinized as *–ista* and Anglicized as *–ist*. It is attached either to a noun or to an adjective. Attached to the noun it means the practice of the noun; to the adjective, it means the being of the adjective.

Before and during the war we heard much of those who made a fetich of peace. There was need of a designation, and of course Latin was immediately laid under contribution. Take the Latin word for peace, namely, *pax*, with stem *pac*, and add *–ist*, and lo! the thing is done, "*pacist*." This most natural formation seems never to have been seriously considered. Then there is the adjective, "pacific," from two Latin words, meaning "peace-

making"; adding the termination *–ist* we get "pacificist." This perfectly good word had some vogue at the beginning of the controversy among those who knew the right. But some one, ignorant of course, struck out the shortened form "pacifist," a monstrosity, without any meaning at all. This hideous barbarism, perhaps because of its adaptability to cheap jokes, was taken up and spread by the newspapers, who seem, as a rule, to have little sense of responsibility for language, and has thus become rooted in English. A still more recent example has a ludicrous side. Greek has a termination *–ides*, meaning "descendant of," Anglicized as *–id*. Latin has a termination *–cida*, meaning "slayer," Anglicized *–cide*. Now upon the overthrow of the German imperial government, the extreme wing of the Socialists took part in revolutionary movements under the name of "Spartacides," that is, "descendants of Spartacus," a Roman gladiator who led a slave rebellion against Rome. The word was a mongrel, to be sure, consisting of a Greek termination upon a Latin name, but it told its story. American newspapers had a hard time with it. So long as they kept to the plural, they had no difficulty, but when they had need of a singular, their ignorance had full swing. Properly the English singular would have been "Spartacid," plural "Spartacids." But taking "Spartacides" as a plural, which it was, and pronouncing it to rhyme with *hides*, what more natural than to make a singular "Spartacide," which can only mean "slayer of Sparta," if it means anything at all. The crafty soon dropped the form altogether, and had recourse to "Spartacan," a correct but different formation. Will any one have the temerity in view of such examples to claim that the classical tongues are dead? Would it not be far better to teach our people to use them correctly?

But it may be said, "The vast mass of the Latin words in English have become so much a part of the English language that they are learned as English words just like other English words." This, if true, which for the sake of the argument I admit, carries with it the question, "Are they understood?" that is, "Is their full meaning appreciated?" Now I have had a good deal of experience in preparing teachers of Latin, and this experience has often amazed me. Young men and women of mature mind, even those who intend to become teachers of Latin, habitually

use a large number of the less obvious Greek and Latin English words either in a wrong sense or with a very hazy idea of their true meaning. Time and again I have asked for a definition of an English word whose classical origin was evident, to find that the would-be teacher had a ludicrously false idea of it, sometimes actually confusing it with another word which had some little resemblance to it. I remember, when I was a pupil in the eighth grade, we had a particularly hated subject called "definitions." We were set to learn the definitions of a certain number of words each day. I also remember that in the examination (in which, by the way, I failed), one of the six words given was *séance*, which I explained as "a short nap after dinner." Oh, but I was a child! Yes, but a colleague of mine, many years later, when a student asked him in class to explain more fully a certain matter that had come up said, "We have no time now. Let's have a siesta about it after luncheon." An extreme case? Perhaps. But another colleague of mine, a most distinguished man, is reported once in the course of a lecture to have defined feudalism as a "halo around the feet of monarchy" without any sense of incongruity. No, the fact is that a large number of people have but the vaguest conception of the meanings of numerous words they see in print, especially if the subject is beyond the commonplace, when an elementary knowledge of Latin, if intelligent, would make the sense perfectly clear. I think that all would admit that sufficient training to give this knowledge would be worth while. Of course we could not expect the people at large, even our legislators, to be as well trained as the members of the British Parliament of a century or more ago, who, if the story is true, while listening to a speech by a certain member of the name of Dundas, were so amazed by his coinage of the mongrel word "starvation," that the honorable member went by the sobriquet "Starvation Dundas" ever after. But we could at least expect that such monstrosities as "pacifist" and "Spartacide" should not disgrace us. And even in our trade names we might be saved such malformations as "aquascutum," "sozodont," and the like.

Since Latin is the origin and foundation of all the Romance languages, it is evident that a knowledge of Latin renders the acquisition of French, Italian or Spanish a matter of little difficulty. I am aware that sometimes we are urged to begin the

linguistic training of the young with French or Spanish, and from these to pass to Latin. But the fact remains that the acquisition of Latin is not appreciably accelerated by any previous study of French, for example, while the reverse is emphatically true. A pupil with two years' training in Latin will learn as much French in three years as would require five years to learn without the Latin. And the Latin equipment is just as effective for Italian or Spanish. From the easy to the more difficult is a good pedagogical principle; but in this matter when the more difficult carries with it to a large extent the less difficult, we have much the same situation as appears in the old story of the two holes in the door of the chicken-coop. In this country, we have thus far chosen Latin first, as a rule, and in the interests of economy it is to be hoped that we shall continue to do so.

I think I have said enough to explain why a large number of people, among them many distinguished men, scholars and men of affairs, have regarded the classics as with mathematics and science constituting in themselves a sufficient education for a youth. If we regard high school training as being essentially general and cultural in character, then sufficient knowledge to constitute a specialist is not required but only enough to give the main clues to the subject. Hence the student of the classics becomes familiar with the general characteristics of language without becoming a specialist in linguistics, gains an insight into the foundations of our civilization without specializing in history or institutions, gets some idea of the theory of politics without becoming a specialist in political economy, sees the effects of division and faction in the social organism without specializing in sociology, learns what constitutes good taste in literature without specializing in literary composition, comes to an appreciation of the highest in art without becoming an artist, and finally obtains a better understanding of his own tongue without trying to become an expert in English philology. Verily this is a formidable array of incidentals.[2] Can any other subject equal this showing or come anywhere near it? This is the

[2] It cannot be too strongly emphasized that these incidentals, as I have called them, in the case of most pupils do not accrue of themselves. The teacher must see that the pupil's attention is directed to them and must insist upon his obtaining them. Only the master mind will absorb them automatically.

subject we are asked to turn out of our curriculum, in order that every subject of which the pupil gets incidentally a general knowledge may be presented in such a way that the advantages of specialization are lost and all its disadvantages have their full fruition.

Perhaps some of you may regard these claims as extravagant. But I assure you they are not so at all. The history of English government in and out of Parliament for the last four hundred years proves that. But certainly these claims are not justified by achievement in the United States. Well, perhaps not—and yet a very good case can be made out from the works of the great men who made us a nation and managed our destinies up to the Civil War. Are we so proud of the works of the last fifty years that we would scorn that which preceded it? But they are certainly not borne out by the experience of the present day. This I freely grant. What I have been trying to show is what classical training gives the opportunity for, and opportunity as we all know is too often not embraced. But surely that fact should not militate against a subject.

There has been a great deal of more or less loose controversy about the value of the classical teaching as measured by accomplishment. A practical people has asked for practical results, and has claimed not to find them in the results of classical training. Particular point has been given this criticism by a pamphlet issued a few years ago by Dr. Abraham Flexner, of the Rockefeller Foundation, in which he cited figures from the results of the College Entrance Board examinations to show that Latin made a very poor showing as compared with other subjects. These figures have been shown to be untrue, but the correction of an error never gains the circulation that the error itself had and perhaps some here are still under the delusion of that pamphlet. The actual facts are that in the results of the College Entrance Board examinations Latin stands third, being slightly outranked by Greek, another classical tongue, and French, a daughter of Latin, and being far ahead of science, history, and English. An explanation of this has been sought in the assertion that the classics have been taught for so long that the technique of teaching them has been more highly developed than that of the other subjects. This, if course, is not true as to the second statement.

The classics have been taught for a long time, but the teaching of them has been completely changed during the last fifty years, and their previous long vogue has been a detriment rather than an advantage in the difficult task of adapting the teaching more nearly to the needs and views of the present day. Hence strictly speaking, practically all the subjects of the curriculum (even mathematics, I am told) are about on the same footing in the matter of technique of teaching, for they have all been completely reorganized during the last half century. Nor am I willing to admit that teachers of the classics have been or are better teachers than those of other subjects. The reason lies deeper.

But I am not now concerned with the reason, but with the fact. All teachers know that the results of their teaching are often very disheartening. How few are they who are content. And in saying that the results of the teaching of Latin are better than those of any subject save Greek and French, I am claiming no superiority for these results. Good as they may be, they often leave the heart of the subject, as I have expounded it before, unrealized.

Nor can we object to any subject that it does not function to any large extent in the after-life of the child. Is there any subject, even English, in which a large proportion of the pupils do not manage later to forget almost all we hoped they had learned in school? No, if we were to be judged by what a large proportion of children get out of their studies, how few of us would look forward to the verdict without trepidation, and how few subjects would remain in the curriculum at all! The real point is what the subject offers, not what the pupil gets. In high school, as afterwards in college, a sumptuous repast is spread; what the guest eats will depend upon his appetite, his capacity and his will. The real standard of measurement is what the master mind gets, for in the last analysis the progress of the master mind is the progress of the race; the master mind sets the pace, the mass must gradually work up to it. A subject that does not offer much more than the average pupil obtains can never serve as a stimulus to the unusual one. And if any of the subjects in our curriculum could be presented in such a way that all who study it could become perfect in it, it would be time for an investigation of that subject.

I have tried to show that, judged by the opportunities they offer, the classics still retain their claim to consideration. I make no claim that they should be taught to the exclusion of the other tested subjects, but I certainly do urge that before they are discarded in favor of untested subjects, those upon whom the responsibility rests should be sure that they can substitute something which will prove equally valuable and equally economical, when the balance is struck by our descendants in aftertimes. To destroy is easy; to rebuild is exceeding difficult. Thus far no such substitute has been found. Perhaps the time may come when it will be found. When that time does come classical teachers will be the first to hail the new light.

THE ACCOMPLISHMENT QUOTIENT

A School Mark in Terms of Individual Capacity

By RAYMOND FRANZEN
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Standardized measurement of educational products has won its way to a recognized place in the school life of this country. Many of our larger cities have research bureaus of tests and measurements, and advanced private schools have departments of measurement. The logic of the use of statistically derived evaluations versus the use of opinion, swayed as it is by the haphazard captions of emotion and condition, has become widely recognized. The case of scientific measurement in education has been argued and won. The objections to older forms of measurement have become the criteria of the value of the new.

Still administrators, though they have been convinced theoretically of its importance, find it hard to see just what measurement does for their schools. They often object that measurements are made, the tests are carried away by the examiner, and some time later they are presented with a neat series of distributions and are told where their school stands in relation to certain other schools or to schools in general. This is undoubtedly a very important piece of information; since a determination of the extent to which a goal has been attained forms the basis of the commendation or condemnation of the methods, curricula, and text-books employed in the process. But administrators want to know which of the various elements of school procedure are to be praised and which are to be blamed.

We cannot condemn or support a *whole* school system on the basis of composite results (unless all possible educational objectives have been measured, and show one common drift; or unless it is necessary that the system fall or stand as a whole) since then we should be throwing good and bad into a common discard. We must measure each thing separately. We must build our ideal system of education synthetically, taking the best methods from

each of the prevalent group of theories. There has been too much absolutism in education, too little of a realism that sees the good and bad in all and diminishes the bad and augments the good. If we adopt this point of view we become really empirical, living through each educational experiment to incorporate it into a growing treasury of tested theory, not deducing success or failure from metaphysical or doctrinaire prejudice. In this administrators have been more scientific than those who measure. They have always objected that they wanted differential diagnoses. Here the answer to their needs must come through experimentation and it is only through nation-wide study and careful comparison and integration of results that methods of teaching can be scientifically established.

Three uses of measurement commonly stressed are: (1) Diagnosis of degree of attainment of goal; (2) selection of method of attainment of goal; (3) definitive outline of goals. We have seen that the first two are of little immediate value to the administrator. The first only gives him an accurate notion of where he stands in any one subject without pretending to tell him why; the second is a promissory note. Some day we shall be able to tell him the best methods for the attainment of his goal. The third has slightly more immediate value. Measurement splits up the goals of education, gives them concrete formulation, allows teachers to see an advance in the class in one function as separate from the rest, allows them, for instance, to distinguish more clearly than they otherwise would between oral reading and silent reading, or between addition and division. But this, too, is rather too general to appeal to administrative economy. One would find it very difficult to sell one's services as a measurer to a school board or a superintendent on the basis of these three values. They answer that universities and scientific research give them as much as they want of these values. What an expert on measurement could add in interpretation of results would seem of small additional value to them.

Still there is a very marked function that such an expert can perform; but he must serve a fourth and fifth use of measurement while he serves a particular school. When he serves the first three he is serving the science of education and, unfortunately, no one school will pay him to do that. The uses of measurement

that directly benefit any one school are: (4) Classification by information and intelligence and (5) Diagnosis of individual disability. For the proper prosecution of these aims individual measurements and age norms are essential. Only with such equipment can we make the prognoses of future school behavior which the administrator so urgently needs.

Grade norms cannot be used to make individual diagnoses. Though we can see by them which children are below and which above the level that in their grade they should attain, we cannot see just what administrators most need to know, namely, which children have progressed at the rate normal for their age, and further, which children are performing at their maximum. More than that, computations based on grade norms are very inaccurate in individual cases. As it becomes necessary to use new norms for such purposes it is important to have them in terms that are directly comparable to intelligence mensuration.[1]

First in importance is an interpretation of the meaning of an Intelligence Quotient. Too often it is stated as a number and left as a number with the belief that somehow or other that is a tag which carries its own divine implication. Its importance lies in its diagnosis of power of adaptation, and it has a high correlation with maximum possible school progress. Just as a pure information test diagnoses the neural bonds that have been formed in any one field, so an intelligence test diagnoses the ability to transfer bonds, to meet a new situation with old bonds and form satisfactory habits—power to learn. As an intelligence quotient is actual mental age divided by chronological age—which is the normal mental level of the child's age-group—so it is the rate at which the child has progressed to mental maturity. It

[1] For scientific purposes we want year-months means and standard deviations, that we may say that Charlie Jones is 2.1 S. D. above the mean for his age level, while Harold Smith is .1 S. D. below that mean. It is in terms such as these that we may be able to compare accomplishment in one function with accomplishment in another, progress in one with progress in another. For many of our problems we need a common denominator of measurement so that we may compare progress between tests and age-groups. This common denominator is, I believe, S. D. in an age-group. Thus we may locate a child in any age-group in any test and compare that location with the position of any other child in any other test in his age-group.

For practical purposes, however, it is for many reasons more convenient to use quotients. Principals would rather deal with quotients since it is easier to explain them in terms of attainment and capacity. It is the use of such quotients that this article discusses.

is his potential rate of progress. It is a division of what is by what normally would be.

A ten-year-old child whose mental age is ten has progressed at the rate which is normal, and his I. Q. is 1.00. A very exceptional ten-year-old child whose mental age is fifteen has progressed just one and one-half times as fast as the former, and his I. Q. is 1.50. Another exceptional ten-year-old child whose mental age is five has progressed at just one-half the rate of the first, and his I. Q. is .50. What we mean, then, by an intelligence quotient is the rate at which a child grows to mental maturity.

One can here assume (an hypothesis the value of which should, it is hoped, be known very soon) that each child can attain this rate of progress in each of the elementary school subjects. This assumes that inherited special disabilities in the school subjects are uncommon, that school progress is determined by the inter-play of intelligence and environment, and that so-called interest characteristics which aid in development are the result of an earlier inter-play of intelligence and environment. For practical purposes this is no very violent assumption since each educational test correlates highly with intelligence. Further, data are available to show that under special treatment a child progresses as rapidly in his school subjects as he does in intelligence. It is easy to see, however, that to work on the hypothesis that a child can reach his mental age in any one ability is a far more defensible proposition and gives a great deal better result than to form an ideal of a child's objective through a knowledge of his age and grade plus a hazy, ill-defined notion of his brightness and his "type." So much for an individual goal—to bring the child to his mental age in each separate educational age.

We can the more readily see the significance of viewing a child's equipment in terms of educational and mental age when we conceive of an educational quotient. This is the quotient resulting from the division of the age level reached in the test in question by the chronological age of the pupil. It is a measure of the rate of progress of the child in the school subject under consideration. Thus a ten-year-old child with ten-year-old ability in Thorndike Reading Scale Alpha 2 would have as his reading age divided by chronological age, 1.00. The division of what is by what would be if the child were normal gives the percentage of

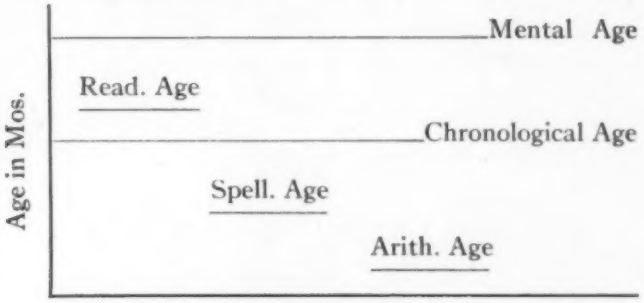
normality, the actual rate of progress. Since the I. Q. is the potential rate of progress and the E. Q. is the actual rate of progress, the ratio of E. Q. to I. Q. gives the percentage of what that child could do, that he has actually done. Thus a child with an I. Q. of 1.32 whose reading quotient (his R. Q.) is 1.10, though he is doing work which is above normal, is not doing work which is above normal for him. His $\frac{RQ}{IQ}$ is $\frac{1.10}{1.32}$, whereas if he were progressing at his optimum rate it would equal $\frac{1.32}{1.32}$. We can, then, measure the approximation to ideal educational performance of any one child in any one elementary school subject through the approximation of this accomplishment quotient to 1.00. One's differences when E. Q. is subtracted from I. Q. are always positive when they are large enough to be significant and small enough to seem spurious when they are negative. Under special treatment one's educational quotients approach the intelligence quotients, that is, the correlation of E. Q. and I. Q. becomes nearer 1.00 when special treatment is given. It is safe, therefore, for practical use to assume that the optimum accomplishment quotient is 1.00.

In any case, there is certainly a significant relation between I. Q. and E. Q., and the more perfect the educational procedure has been, the more it has called forth all that the child is capable of, the higher it will be. To determine whether the quotient in any school subject can be greater than the intelligence quotient in any significant amount, it will only be necessary after we have perfect age-norms by months to get that quotient amongst those pupils whom we know to be working at maximum. What is significant here is that the more nearly any such quotient approaches the intelligence quotient the more nearly has the child been brought up to what he is able to do under the best conditions. The accomplishment quotient is the degree to which his actual progress has attained to his potential progress by the best possible measures of both.

This would be a mark of the child's effort, a mark of the concentration and interest that the child has in the school work, and as far as no other inherited traits than intelligence affect school work it is a measure of the efficiency of a child's education thus

far. If there are such other innate bases it is also a measure of inherited traits, such as concentration and effort. At any rate it is a measure of the child's accomplishment, and so of the effort and concentration as they really are at present working under those school conditions.

A very convenient graph representing the same facts and easily interpreted by the teacher may be constructed thus:



Here it can be easily shown that Spelling Age, Reading Age, Arithmetic Age, etc., are in some definite relation to both chronological age and mental age. Using the mental age line as a goal, these records may be kept constantly up-to-date. Another use of the accomplishment quotient is as the medium in which the children may keep records of their own work. As it is a mark in terms of intelligence, dull and brilliant children may compete on a parity to bring their accomplishment quotient as near as possible to 1.00.

Mainly we have advanced formal education. We have in many ways promoted the abilities to read, write, spell, and figure. But our philosophy of education has advanced far beyond that. We have other aims in education, and consequently other methods and modes, which also must be measured and judged. We wish to promote such qualities as stability, self-reliance, concentration, and ambition. It does not necessarily follow that we must measure these things directly, though every one vitally interested in measurement cherishes the hope that we may some day measure their behavioristic correlates,—"For the quality of anything exists in some quantity, and that quantity can be measured."

"Some of us might be entirely willing to rest the case after asking whether in practical school life anyone ever saw a teacher thoroughly confident of teaching ideals but neglectful of reading and arithmetic. The fact is that the conscientious teacher always gives attention to both and the successful teacher is able, without omitting one, to cultivate the other. The theoretical possibility of thinking of the two results separately has little significance in dealing with real teachers and real schools. Good reading is a school virtue; and when one has measured good reading he has measured more than the trivial or formal side of education."[1]

This I believe to be true, but I also believe that through measurement we can actually promote those other more ethical ideals in education. Through classification by information and by intelligence we gain a marked increase of attention, concentration, ambition, and other objectives. More discussion due to a greater homogeneity promotes powers of inference and insight; being only with equals promotes self-confidence and honor, and in many cases prevents a regrettable conceit among supernormals; having work to do which is hard enough prevents habits of indolence and carelessness so commonly found among intelligent children.[2]

It is a well-known fact that much work must be done in classification to get homogeneity or real conditions of teaching. As it is, most teachers are talking to the middle of their classes. They mystify the lower quarter and bore the upper quarter; they talk to the upper quarter and mystify the lower three-quarters; or they talk to the lower quarter and bore the upper three-quarters. When a child is bored or mystified his educational quotient becomes less while his intelligence quotient remains constant. Then his accomplishment quotient becomes less as long as he remains in a position where he is being mistreated educationally. This, then, is the proper measure to see whether a child is classi-

[1] Judd, C. H. "A Look Forward," in Seventeenth Yearbook, Pt. II., of the N. S. S. E., 1918.

[2] When the disadvantages of "pushing" children are discussed, the disadvantages of keeping children at their chronological age levels should be considered as well. Although it is true that a supernormal child placed in that grade for which he is mentally equipped loses much in social contact, it is also true that he loses a great deal by remaining in the grade where he physiologically belongs. There he develops habits of conceit, indolence, and carelessness.

fied properly or not. At the Garden City public school I changed as far as I was able the conditions of education of each child in that subject wherein his accomplishment quotient was markedly below 1.00. The concentration and effort of the child were obviously low and my attempt was to change conditions and to promote habits of consistent work. When the accomplishment quotient grew larger I knew that the child was profiting, that he was working. When it equalled 1.00 I was satisfied that the child was doing his best work (as far as my measures were accurate).

This accomplishment quotient would to my mind be an ideal school mark. Beside the inaccuracy of marks to-day, which are accurate marks only of the teacher's opinion, biased as it is by the personal equation of the pupil, there is another fault of prevalent school marking. It is based on average work. The mark is the link between education in the school and education in the home. It gives the parents an index of the child's work and allows them to encourage or discourage the child's attitudes. Such indices have no real significance when they are based upon average development, as the parent is generally mistaken about the ability of the child.

Marks given by a teacher are satisfactory only for a normal child with normal age for the grade. Brilliant children are overpraised for work which, though over the ability for the group, is under their own ability. Marks given to stupid children are misinterpreted by parents so as greatly to prejudice the effort of the child. Though his work may be such as to merit encouragement his mark may be very low. Teacher's marks are, aside from their inaccuracy, just, only in a group that is perfectly classified; just, only when the children are all of the same ability and all possess the same initial information. So far as they are unjust they are subversive of our aims, as they then transmit a faulty message to the home and disrupt the continuity of school and home education.[3]

Such marks as are here advocated would correct this feature of our present system, as well as its inaccuracy. It is a mark which

[3] Whether only the Accomplishment Quotient as a percentage should be given the parents, or whether they should know both the I. Q. and all the E. Q.'s, is a question on which I am not decided. I incline to believe that the parents should know only the final marks and am sure that I advise telling the children these only.

evaluates the accomplishment of the child in terms of his own ability. A brilliant child would no longer be praised for work which in terms of his own effort is 70 per cent perfect, in terms of the group 90 per cent. The teacher gives him a mark of 90 while we mark him 70. A stupid child who does work which is marked 70 in terms of the class but 90 in terms of his own, a limited ability, is no longer discouraged. His effort is evaluated, and the praise that he receives from home is merited and consequently economical since the resultant satisfaction cements the bonds of concentration and attention. Such a mark is an actual index of the effort that child is making and consequently forms the proper link between the school and the home.

Parents would need no great instruction in the interpretation of these marks, since they have always acted as though the other marks were these and since these also are in percentage form. The only kind of a mark they *can* understand is an Accomplishment Quotient. I found that the parents of the children at Garden City were more attentive to such marks than to others, and acted upon them more readily. Of course the parents of the very intelligent children, who are used to marks above 90, are surprised at first when you tell them that your mark of the child is 80; but upon explanation, which should in all cases precede the first report to the parents, they immediately see the value of such grading. It is fortunate in this connection that the greatest amount of explanation is necessary about intelligent children, as one deals then with intelligent parents.

TABLE FOR COMPUTING MEAN INDIVIDUAL SCORES IN EDUCATIONAL SCALES

By MARVIN J. VAN WAGENEN

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The advantages of expressing measurements of individual or group achievements in an educational subject in terms of some common and convenient unit of measurement, such as the semi-interquartile range, seem almost too evident to be mentioned. Teachers of English are beginning to speak of a student's composition as having a quality of sixty on the Thorndike or the Nassau County Extension of the Hillegas Scale with a certain degree of familiarity and confidence. With the use of Dr. Truman Lee Kelley's tables [1] for calculating individual scores on the Thorndike Reading Scale, Alpha 2, it is no longer any more mystifying or awkward for many people to speak of a pupil making a score of 8.3 in reading for comprehension than it is for them to say that he is five feet, four inches tall. At the same time, the expression, "A pupil makes a score of 8.3 in reading for comprehension," is as much more definite than the statement, "He reads better than most eighth grade boys," as the expression, "He is five feet, four inches tall," is more definite than the statement, "He is taller than most eighth grade boys."

Although a method of expressing individual scores in terms of a common unit and at the same time obtaining more accurate measures of individual achievement than is possible with the ordinary use of scaled data in the same amount of time was suggested by Dr. Kelley some four years ago, he himself seems to have been the only one to make use of the method thus far.[2] Despite the unusual accuracy of individual scores obtainable in Dr. Kelley's arrangement [3] of the Trabue Completion-Test

[1] "Thorndike's Reading Scale Alpha 2 Adapted to Individual Testing," *Teachers College Record*, Vol. XVIII, pp. 253–60.

[2] "A Simplified Method of Using Scaled Data for Purposes of Testing," *School and Society*, Vol. IV, pp. 34–37, 71–75.

[3] "Individual Testing with Completion-Test Exercises," *Teachers College Record*, Vol. XVIII, pp. 371–82.

Language Scales into Completion Exercises Alpha and Beta for individual testing, comparatively little use seems to have been made of these scales. It is not improbable that the seemingly involved and laborious method of calculating the mean score at the point where just fifty per cent of the tasks are correctly done, is in no small part responsible for the limited use to which these scales have been put, and also for the hesitancy of people interested in scale making to adopt the method suggested by Dr. Kelley. The author's own annoyance at having to use the method given in Dr. Trabue's *Key for Completion-Test Language Scales*[4] for calculating mean individual scores was responsible for an effort to find a means of reaching the same result in a shorter way. With the use of Tables I and III printed below it is now possible to calculate the mean score of an individual in any scale of the type of the Completion Exercises Alpha and Beta in a very few seconds instead of going through the long, involved process quoted below.

The following Record and Calculating Sheet, the sample cases, and the explanations for using the Record Sheet and calculating the scores as published in Trabue's *Key for Completion-Test Language Scales*, pages 64 to 67, are reprinted here for reference. (Pages 443–446.)

[4] Trabue, M. R., *Key for Completion-Test Language Scales*, Teachers College, Columbia University, 1919.

RECORD AND CALCULATING SHEET

FOR CALCULATING INDIVIDUAL PERFORMANCE LEVELS ON COMPLETION TEST EXERCISES ALPHA AND BETA

I Group of Sentences	II Average Difficulty	III Raw Score	IV Decrease in Raw Scores	V Mid-point Between Groups	VI Products IV × V
	−1.00	...Est.			
			.....	−.5	.....
	0.00	...Est.			
			.....	.5	.....
	1.00	...Est.			
			.....	1.5	.....
1–5	2.00	.....			
			.....	3.0	.....
6–10	4.00	.....			
			.....	5.0	.....
11–15	6.00	.....			
			.....	6.5	.....
16–20	7.00	.....			
			.....	7.5	.....
21–25	8.00	.....			
			.....	8.5	.....
26–30	9.00	.....			
			.....	9.5	.....
31–35	10.00	.....			
			.....	10.5	.....
36–40	11.00	.....			
			.....	11.5	.....
	12.00	...Est.			
			.....	12.5	.....
	13.00	...Est.			
			.....	13.5	.....
	14.00	...Est.			
			.....	14.5	.....
	15.00	...Est.			
			.....	15.5	.....
	16.00	...Est.			
			10		

Name.....

Age.....*Grade*.....

School.....

Score.....

Individual's score is found by dividing the sum of products in column VI by the sum of decreases in column IV.

Upon such a table the eight raw scores of any individual should be entered and the calculations made. The raw scores used in a previous paragraph as an example would be entered and the calculations made as follows:

EXAMPLE 1

I Group of Sentences	II Average Difficulty	III Raw Score	IV Decrease in Raw Scores	V Mid-point Between Groups	VI Products IV × V
1–5	2.00	*10*	.....	3.00	.....
6–10	4.00	*10*	.....	5.00	.....
11–15	6.00	*10*	.....	6.50	.....
16–20	7.00	*10*	*2*	7.50	*15.0*
21–25	8.00	*8*	*3*	8.50	*25.5*
26–30	9.00	*5*	*3*	9.50	*28.5*
31–35	10.00	*2*	*2*	10.50	*21.0*
36–40	11.00	*0*			
			10		)*90.0* (*9.0*

It will be observed in column III that John made a perfect score of 10 points on each of the first four groups of sentences. In the group of sentences from 21 to 25, however, John secured only eight out of a possible 10 points, so that between group 16–20 and group 21–25 there is a decrease in raw score (noted in column IV) of 2 points. The average value or mid-point between these two groups, between which there is a decrease of 2 points raw score, is 7.5 (shown in column V). The product (15.0) of 2 and 7.5 is therefore entered in column VI.

Between the group of sentences 21–25 and the group 26–30 there is a decrease of 3 points raw score and an average value of 8.5. The product (25.5) is therefore entered in column VI. The sum of all the products finally entered in column VI is at last found and divided by 10, the sum of the decreases entered in column IV. The result of this division gives the difficulty value (9.00) at which the particular individual, John, would probably succeed or fail in an equal number of cases in his attempts to complete mutilated sentences.

It is quite evident, however, that very young children will not make a raw score of as much as 5 points on the easiest group of sentences (group 1–5). Some provision must therefore be made for estimating what

a given raw score on the easiest group, which has a difficulty value of 2.00, would mean on another group of difficulty 1.00, or on a group of difficulty −1.00. Similarly, we must provide for estimating from the raw scores made by superior individuals on the most difficult group of sentences (group 36–40), which has a difficulty of 11.00, what scores would be made on more difficult groups if such were provided. Professor Kelley also points out that in using the method here described it is necessary that the easiest difficulty considered should bring about a raw score of 10 and the hardest difficulty a score of 0. The range of difficulties in Exercises Alpha and Beta is too limited to fulfill this requirement in all cases, and therefore the following tables are provided by Professor Kelley for use in estimating raw scores for difficulties 1.00, 0.00 and −1.00 from actual raw scores on the group 1–5, which has a difficulty of 2.00; and for estimating scores for difficulties 12.00, 13.00, 14.00, 15.00 and 16.00 from actual raw scores on group 36–40, which has a difficulty of 11.00.

Actual Score on Difficulty 2.00	Estimated Score on Difficulty		
	1.00	0.00	−1.00
9	10	10	10
8	9	10	10
7	9	10	10
6	8	10	10
5	7	9	10
4	6	8	10
3	5	7	10
2	4	6	10
1	3	5	10
0	0	5	10

Actual Score on Difficulty 11.00	Estimated Score on Difficulty				
	12.00	13.00	14.00	15.00	16.00
0	0	0	0	0	0
1	0	0	0	0	0
2	1	0	0	0	0
3	1	0	0	0	0
4	2	1	0	0	0
5	3	1	0	0	0
6	4	2	1	0	0
7	5	3	1	0	0
8	6	4	2	1	0
9	7	5	3	1	0

It frequently happens that an individual will make for some reason a higher raw score on one group of sentences than he made on a previous group which is in general less difficult. In such a case the decrease in score to be entered in column IV will be a negative quantity. In the case of the individual reported below, for example, 9 points were secured on the 36–40 group while only 8 points had been secured on the easier 31–35 group. The decrease entered in column IV is therefore −1, and the product entered in column VI is −10.5. The following example also illustrates the use of estimated scores for values not actually contained in Exercises Alpha and Beta.

EXAMPLE 2

I Group of Sentences	II Average Difficulty	III Raw Score	IV Decrease in Raw Scores	V Mid-point Between Groups	VI Products IV × V
	−1.00	...Est.			
	0.00	...Est.	.....	−.5	.....
	1.00	...Est.	.....	.5	.....
1–5	2.00	*10*	.....	1.5	.....
6–10	4.00	*10*	.....	3.0	.....
11–15	6.00	*10*	.....	5.0	.....
16–20	7.00	*10*	.....	6.5	.....
21–25	8.00	*10*	.....	7.5	.....
26–30	9.00	*10*	.....	8.5	.....
31–35	10.00	*8*	*2*	9.5	*19.0*
36–40	11.00	*9*	*−1*	10.5	*−10.5*
	12.00	*7* Est.	*2*	11.5	*23.0*
	13.00	*5* Est.	*2*	12.5	*25.0*
	14.00	*3* Est.	*2*	13.5	*27.0*
	15.00	*1* Est.	*2*	14.5	*29.0*
	16.00	*0* Est.	*1*	15.5	.....
			—		
			10		)*128.0*(*12.8*

Taking the sample given by Dr. Trabue (page 444), with the use of Table I (page 448) the mean score may be quickly, easily, and accurately determined in the following manner:

Find the number of errors at each step or value on the scale. In the first sample, at value 8 there are 2 errors; at value 9 there are 5 errors; at value 10 there are 8 errors; at value 11 there are 10 errors.

Note the step where all the attempts are errors; namely, at scale value 11. Find value 11 at the top of Table I and follow the column down until opposite the number of errors made at this point; namely, opposite the 10 under "Errors" at the left side of the table. The value is 10.5. Then add together all the errors made at each step before reaching this scale value — 2 + 5 + 8, which equals 15. Divide the 15 by 10 or point off one place. Subtract this result — the 1.5 — from the 10.5. The result, 9.0, is the mean score, the same mean score arrived at by the longer process used in the first sample case.

In case a student fails to do correctly all the tasks in the easiest set of tasks in the scale, it is necessary to make one of the following additions to the amount of errors to be subtracted from the score found in Table I.

TABLE II

When the lowest value has 9 errors out of a possible 10, add 2.1 to the amount to be subtracted.

When it has 8 errors, add 1.3 to the amount to be subtracted

" " " 7 " " 1.0 " " " " " "

" " " 6 " " .7 " " " " " "

" " " 5 " " .5 " " " " " "

" " " 4 " " .3 " " " " " "

" " " 3 " " .2 " " " " " "

" " " 2 " " .1 " " " " " "

Thus, if tasks at values 10, 11, 12, 13, and 14 are used in a test and a pupil makes 8 errors out of 10 at value 10, 7 errors out of 10 at value 11, 10 errors out of 10 at values 12, 13 and 14, look for value 12 at the top of Table I, follow the column down until opposite the 10 under "Errors" at the left side of the table. This gives 11.5. Add the number of errors made in values 10 and 11 — 7 and 8, which gives 15. Dividing by 10, or pointing off one place, gives 1.5. Since there are 7 errors made on the easiest set of tasks

TABLE I—TABLE FOR DETERMINING AVERAGE SCORES

Scale Steps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Errors															
1	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5	15.5	16.5	17.5
2	2.6	3.6	4.6	5.6	6.6	7.6	8.6	9.6	10.6	11.6	12.6	13.6	14.6	15.6	16.6
3	2.2	3.2	4.2	5.2	6.2	7.2	8.2	9.2	10.2	11.2	12.2	13.2	14.2	15.2	16.2
4	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8	9.8	10.8	11.8	12.8	13.8	14.8	15.8
5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5	15.5
6	1.2	2.2	3.2	4.2	5.2	6.2	7.2	8.2	9.2	10.2	11.2	12.2	13.2	14.2	15.2
7	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0
8	.8	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8	9.8	10.8	11.8	12.8	13.8	14.8
9	.6	1.6	2.6	3.6	4.6	5.6	6.6	7.6	8.6	9.6	10.6	11.6	12.6	13.6	14.6
10	.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5

TABLE III—TABLE FOR DETERMINING AVERAGE SCORES FOR SCALES ALPHA AND BETA

Scale Steps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Errors															
1	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
2	2.6	3.6	4.6	5.6	6.6	7.6	8.6	9.6	10.6	11.6	12.6	13.6	14.6	15.6	16.6
3	2.1	3.1	4.1	5.1	6.1	7.1	8.1	9.1	10.1	11.1	12.1	13.1	14.1	15.1	16.1
4	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8	9.8	10.8	11.8	12.8	13.8	14.8	15.8
5	1.4	2.4	3.4	4.4	5.4	6.4	7.4	8.4	9.4	10.4	11.4	12.4	13.4	14.4	15.4
6	1.2	2.2	3.2	4.2	5.2	6.2	7.2	8.2	9.2	10.2	11.2	12.2	13.2	14.2	15.2
7	.9	1.9	2.9	3.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9
8	.8	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8	9.8	10.8	11.8	12.8	13.8	14.8
9	.6	1.6	2.6	3.6	4.6	5.6	6.6	7.6	8.6	9.6	10.6	11.6	12.6	13.6	14.6
10	.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5

it is necessary to look for the 7 in Table II and to add the 1.0 to the 1.5 making 2.5 to be subtracted from the 11.5. This gives a mean score of 9.0.

Next, note the number of errors made at each step in the second sample (page 446). At value 10 there are 2; at value 11 there is 1.

The estimated scores need not be considered. As the last set of exercises attempted had a value of 11, find 11 at the top of the table and follow the column down until arriving at the number of errors made at this step—namely, 1. The value given here is 13.5. Since there are 2 errors occurring previous to this step, the 2 should be divided by 10, giving .2, and this result subtracted from 13.5 leaving 13.3. This mean score, however, does not correspond to the mean score on the second sample. This discrepancy is due to the fact that a set of estimations for unattempted difficulties different from those given by Dr. Kelley in *School and Society*, Vol. IV, page 71, and forming the basis for Table I, is used in the case of the Trabue-Kelley Completion Exercises Alpha and Beta. For this reason Table III has been worked out for use with these scales.

Table III is to be used in exactly the same way as Table I. Since in the second sample there is 1 error at value 11, the highest value in the test itself, look for value 11 at the top of Table III. Follow the column down until opposite the 1 under "Errors" at the left side of the table, since 1 error was made at value 11. The value given in the table is 13.0. Since 2 errors were made before value 11, the 2 should be divided by 10, and the result, .2, subtracted from the 13.0, leaving a mean score of 12.8, which is the same mean score as that found by the long process used in the second sample. With the use of the table there is no need for finding the decrease in raw scores, the increases or negative numbers do not have to be taken into consideration, and the table for estimating difficulties for more difficult sets of tasks than those given may be dispensed with. The table does all these things mechanically, making it possible to arrive at the mean value in a few seconds.

Owing to the fact, however, that there are no sets of tasks at values 3 or 5 in Alpha or Beta, the following table, Table IV, cannot be used in cases where the pupil does not get the first

ten sentences correct, unless these scores are neglected. One can, however, neglect what is done on sets 2 and 4 and determine the final mean score on what might be expected at values 5, 4, 3, 2, 1, and 0 when the score at value 6 is taken as the basis of estimation. If this is done then the amounts given in Table IV, instead of the amounts given in Table II, should be added to the amount to be subtracted from the value given in Table III.

TABLE IV

When value 6 has 1 error out of the possible 10, add nothing to the amount to be subtracted.

When it has	2	errors, add		.1	to the amount to be subtracted						
"	"	"	3	"	"	.1	"	"	"	"	"	"
"	"	"	4	"	"	.3	"	"	"	"	"	"
"	"	"	5	"	"	.4	"	"	"	"	"	"
"	"	"	6	"	"	.7	"	"	"	"	"	"
"	"	"	7	"	"	.9	"	"	"	"	"	"
"	"	"	8	"	"	1.3	"	"	"	"	"	"
"	"	"	9	"	"	1.6	"	"	"	"	"	"

Should the question arise as to which of the tables, I or III, it is best to use, the answer might well be that each table gives a highly accurate mean score, the differences being slight and due to differences in the estimated difficulties at values where no tasks are used. With Dr. Kelley's arrangement of the Language Completion Scales Alpha and Beta, Tables III and IV should be used. For the construction of a new scale according to the method suggested by Dr. Kelley in *School and Society*, Vol. 4, pages 34–37, it is advisable to use Tables I and II as the estimations used are somewhat finer than those used in Tables III and IV.

The tables as constructed are for the use of either five tasks with two credits each or ten tasks with one credit each at each value of the scale. It is feasible, however, to adapt the tables for other numbers of tasks. As they stand at present the average values of the several tasks at each value must fall at the whole number values. Although the steps must be kept one unit apart, the tables may readily be adapted for the beginning step to fall at any fractional value. If the first step should fall at 4.3 instead of at 4 it is merely necessary to add .3 to every value in Tables I or III to make them just as readily usable as with the present whole number values.

One of the important advantages to be derived from the use of the method of scale construction suggested by Dr. Kelley, and the use of these tables for reading off the mean score of the individual, is that directly comparable scores may be obtained from scales starting and ending at different places on the total scale range. The same Q score may be made on a scale starting with 4.7 Q tasks, as on another starting with 6 Q tasks. Scores expressed in a common unit and so directly comparable will make possible, for instance, much finer comparisons of effects of different methods of teaching or rates of progress under different conditions of learning. At the same time similar or duplicate scales in which the same score can be attained may be much more readily constructed than is the case at present.

TEACHING MODERN HISTORY BY THE PROJECT METHOD

An Experiment

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The Committee on History and Education for Citizenship of the American Historical Association has proposed for the tenth year a course in "Modern World History with emphasis upon political, social and economic development, showing progress toward world democracy." Contributions to the wide discussion of the recent report of this committee have considered many aspects of the difficult problem of arranging a satisfactory course in history and civics for the schools of the country. Most of this discussion has dealt with matters of content. It is the purpose of the following article to present the question of method and to point out the possibilities that lie in the adaptation of the project-problem as a basis for teaching history, and at the same time to give along with it valuable training in citizenship.

As a teacher of history for many years I have come to feel that history is not doing for our young citizens what the Committee of Seven said history should do. That report, issued in 1899, has come to be looked upon by many of us as the Old Testament of the history teacher. It contained much that was and still is excellent. For instance, under the caption of "Training for Citizenship" we note the following as objectives of history: "It is true that any subject which aids the pupil to think correctly, to be accurate and painstaking, which awakens his interest in books and gives him resources within himself, in reality fits him for good and useful citizenship." "History cultivates the judgment by leading pupils to see the relation between cause and effect." "The power of gathering information is important . . . but the power of using information is of greater importance." "A no less important result of history study is the train-

ing which pupils receive in the handling of books." "History is also helpful in developing the scientific habit of thought." "The thoughtful teacher of experience will say that these prime requisites of wholesome education may in some measure be cultivated; and that when opportunity for comparative work is given in the later years, historical-mindedness may be so developed as materially to influence the character and habits of the pupil."

"The thoughtful teacher of experience will say," in fact is saying, that these objectives, splendid in themself in training citizens, are not realized from the study of history as it is generally taught in our high schools to-day. Dr. Tuell raises this very question in the opening words of the preface to her helpful and forward-looking book, *The Study of Nations*.[1] "History in the schools has recently been put on the defensive, challenged as a failure in its civic functions. Its established theory in the minds of its critics crumbles for lack of definite social purpose."

In this connection I wish to speak of an experiment in history teaching that we have been trying out at the Horace Mann School for Girls for the past year. It is a course in Modern European History, and the class is in the last year of the Junior High School. We have taken as our objectives the citizenship concomitants of the Committee of Seven, as listed above, and our general method from John Dewey: "The true starting point of history is always some present-day situation." Realizing that if this method were followed the class would not have the customary chart and guide in the form of the chronologically arranged text, the instructor lined out at the start for his own guidance the main forces at work during the period he was developing. It was his hope to leave definite impressions of these forces, which he listed in his record book as follows: (1) The Industrial Revolution, (2) The Growth of Nationalism, (3) The Expansion of Europe, (4) The March of Democracy, (5) The New Europe. First came a quick review of the leading events of the eighteenth century and these with dates were arranged in a chronological bird's-eye view chart, space being reserved for the nineteenth and twentieth centuries to be filled in as the work progressed. A civic note-book was kept by each member of the

[1]Tuell, Harriet E., *The Study of Nations: An Experiment in Social Education* (Riverside Educational Monographs.)

class and this became the seed-bed of many of our projects. A special shelf was reserved for us in the library, and in addition to these reference books, the class subscribed to the little paper, *Current Events*, and used freely newspapers, weeklies, magazines, and several of the standard general reference works and encyclopædias. Early in the year we organized in a democratic manner with chairman, secretary, and activities committees, determined by our needs. Then we pictured Europe as it was after the Congress of Vienna, and each student prepared a colored map of Europe in 1815.

With this as background we were ready to "hop off." The special method determined upon by the instructor was the problem-project as advocated by Dr. Kilpatrick.[2] Now, the project theory is still more or less in the ideal or theoretical stage, and it is not my contention that we lived up to all its requirements or possibilities. We tried, however, in each case to get as large an amount of the essential four steps—"purposing, planning, execution and judgment"—as possible into each project, and the more we succeeded in doing this the better were our results.

The initial project required considerable "setting of the scenery" on the part of the instructor, but the one finally determined upon was this: "The progress of labor and how it affects us to-day." This is as the class worded it. They gave as their reasons for this particular selection their desire to "understand something of the causes of the dispute between labor and capital," "the meaning of certain terms which they heard or came across in their reading," e. g., collective bargaining, open-shop, injunction, I. W. W., Bolshevism, etc.; their natural desire to "comprehend the conversation at home" and to "understand the significance of the cartoons they saw in the newspapers and weeklies." In this particular case we followed the chronological method, beginning with the story of the wonderful inventions of the last of the eighteenth century. They became greatly interested in the "home-spun industries" of 150 years ago and enjoyed picturing in detail the daily life of their great-grandmothers. The apprenticeship system was carefully worked out and reserved for comparative purposes later. Then came the

[2] Kilpatrick, W. H., *The Project Method*. (Teachers College, Columbia University.)

harnessing of power to machinery; the growth of the great industrial centers; the *laissez-faire* attitude of the government; the first trade unions; the growth of the labor movement; strikes and their causes; the points of conflict between capital and labor; and, in closing, a discussion of those very things the class wished to know about when they purposed their project. Their civic note-books swelled with clippings on the labor problem; there was much open discussion in class; a cartoon was brought in each day, its significance explained and placed in the "cartoon corner." The teacher was astonished many times at their grasp of some of the points at issue, e. g., the causes of the break-up of the industrial conference at Washington. They said they talked it over at home and read the newspapers and weeklies more. They told each other of good material they found. On almost any day eight or ten different sources, other than the text, were referred to by the class as a whole.

To be sure, this took time. I see by my record that we began this project on October 10 and finished it November 14. At the end of the work a committee was duly appointed to organize, in summary form, the material gathered in building up the project. This was mimeographed and each student was given a copy for her note-book. They called it their "irreducible minimum."

As part of their test I showed a cartoon by Busnell, published in the *Literary Digest*, October 28, 1919, picturing a lion (capital) and a lamb (labor) drawing up their articles of agreement. One-half of the cartoon was called "Some years ago" and showed a very meek and diminutive lamb seated at the conference table with a towering aggressive lion. The second picture showed the situation as it is now with labor grown to a sizeable ram with heavy horns, and the lion not so aggressive. My question was: "Explain this cartoon in the light of history." Yes, this took time, but we were getting under way and learning how to use our tools more advantageously.

The next project entered an entirely different field, and one the instructor approached with certain tremblings of spirit: "Why is Ireland demanding Home-rule?" We had hardly started out when someone observed that many people in Ireland did not want Home-rule. So they reworded their project, a false plan, you see, and started in once more. We had not gone far when

my fears were justified. Feeling ran high with some of the pupils and comments were made on both sides of the question in no uncertain tones—a real social situation. After one of these outbursts the instructor at the next meeting of the class took the occasion to read Franklin's plea for harmony at the Constitutional Convention. He made no comment or "preachment." But there was no question of its direct application. "Light, not heat" was placed upon our "Watch this spot!" board. The class rallied to the ideal; the social disapproval of the group was manifest whenever anyone broke out after that, and when we came to the end of the project they wished to carry it further with a good debate. A class discussion was held with the president in the chair to ascertain whether or not this could be done on the "Light, not heat" basis, and the "light" won. So speakers were chosen by the debating committee to defend the three aspects of the situation, present status, Home-rule, and independence.

The test at the end of the work was this: "What are the possible solutions of the Irish question? Which do you favor and why?" Throughout the developing of this project the teacher had in mind bigger things than fact content. He was after tolerance, courteous tone of voice, balanced judgment, and open-mindedness, with convictions based on facts. One answer to his question contained this naive confession: "Although I am of Scotch-Presbyterian descent and naturally feel with the people of Ulster, nevertheless I am in favor of independence for Ireland." We finished this project just before the Christmas holidays. During these three weeks of vacation came the presentation of Lloyd-George's plan of Home-rule, and the attack on Lord French. When the class reassembled I inquired how many had read anything on Ireland during the holidays. Thirty out of forty said they had done so; and twenty-six reported that on their own initiative they had cut out clippings for their civic note-books. My Scotch-Presbyterian came to me at the end of the recitation and confided that in the light of the events of these two weeks she had changed her mind and was now a "Home-ruler." I did not find out whether this change was caused by "light" or "heat."

Ten lessons were given over to the project on Ireland, including an entire period for the debate. The debate was a formal con-

test, briefs were drawn up in proper fashion, and parliamentary procedure prevailed. There was a close contest between the spokesmen for Present Status and Independence, the judges giving the verdict to the former by only a slight margin. The class unanimously declared that the debate was conducted on a "light, not heat" plan. At the end of the work on this project I took occasion to pool the class as to their personal views. The result was: Present Status, 14; Independence, 19; Home-rule, 5. Several then desired to know how the instructor felt. I asked them to vote on what they thought my "leanings" were on the question, with the following result: Present Status, 7; Independence, 8; Home-rule, 11; Did not know, 12. I then told them—stressing the point that it was only my opinion—that I favored Home-rule. I next inquired how many had changed their minds on this question since the beginning, and 20 said they had done so.

To show how the study of current events plus the note-book form a seed-bed for future promising projects, I give the following. When the Prince of Wales visited New York the girls became quite interested and many got glimpses of the "prince charmant." I picked up the trail of the prince in their civic note-books, and, biding my time, one day dropped this question: "Why did so many of you wish to keep the picture of this young fellow?" "Why, he is the Prince of Wales!" "What of it?" "That means he is going to be King of England some day." "Is that so very important?" "Of course, he will have a lot of power and live in royal state." "How much power will he have?" The chorus, not quite so confident, "Oh, a lot." "As much as our president?" Chorus mixed and uncertain. And so they were led into deep water where they had to swim for it. There was an immediate desire to find out how much power the King of England actually has to-day. This led in its turn to a contrast with the President of the United States; and eventually that discussion led to a point by point comparison of the governments of the two countries. A large comparative chart, 15 x 35 inches, was drawn up by each member, and when the French elections came off, a study of the French government was in order and that in its turn was added to the chart. On a recent examination of these charts I found that several countries, e. g., Japan, Switzerland,

Brazil, Spain, Italy had been added to the others out of their own initiative.

Other projects which the class have worked out this year are: "What are the causes underlying the unrest in Russia?" "How was Switzerland able to maintain her neutrality during the World War?" In this last project a most interesting and natural discussion arose over the Swiss compulsory military system. Would it not be a good plan for the United States to adopt such a system? The class was fairly evenly divided, so each wing chose two champions and the debating committee arranged a meeting for the near future.

One day while the Switzerland project was under discussion a visitor remarked at the end of the hour: "I came in a little late, and although I have listened intently for nearly forty minutes I do not know now whether this is a class in geography, history or civics." I could not help him out much in giving him the proper label, but asked in my turn if the project could be answered without some study of the geography, history and government of Switzerland? At least we felt that they were all "grist to our mill"; and this points out, by the way, a perfectly natural and not a dragged-in correlation.

Other worth while projects have already been proposed by the class, and we expect to take them up before the end of the year. For example:

1. How did France become a republic?
2. How did constitutional government come to England?
3. How did Italy become something more than "a geographical expression"?
4. Why is Japan one of the five leading nations of the League?
5. Is Canada a self-governing state?
6. Why is Poland demanding her "ancient rights and privileges"?

Many such pertinent questions as the above, which bear directly upon the social, political and economic phases of modern life, rise very naturally to the lips of pupils awake to present-day conditions. It is one of the chief duties of the teacher to stimulate these natural interests and then guide them intelligently. To be sure, the teacher himself should understand very definitely

what he is driving at and where he is going. He should have so chartered the course that at the end of the year's work the class would have "covered essentials" although in no page by page fashion.

As the end of the year's work draws near it is the purpose of the instructor to give sweeping reviews of the entire field by using certain of the broad topics as unifying or coördinating projects. These would represent the main forces at work during the period, e. g., The Growth of Nationalism, The March of Democracy. It is the purpose of these larger projects to give the pupils the idea of change and development, and, at the close of the year, to leave with the pupils definite clear-cut conceptions of these main forces.

In order to hold the class to a definite purpose, they were told at the beginning of the course that at the end of the year their principal, Mr. Henry C. Pearson, who is directly responsible for several valuable suggestions, would set the examination covering the entire period from 1815 to the present. The instructor will have no hand in drawing up these questions. Mr. Pearson has been particularly interested in the "citizenship concomitants" that are incidental to the work. He is planning to adopt the project method next year with a group in his Senior High School who will take up the social and economic problems which confront our American democracy to-day.

Some will criticize such teaching as this by saying it is a "hit or miss" method; there will be "chronological confusion" and "no semblance of order in the assembling of historical data."

At this point let me quote from an article which appeared in the *History Teachers Magazine* for November, 1914, on "The Teaching of History in Secondary Schools," by Dr. David Snedden, of Teachers College: "The time has arrived, I am convinced, when all persons interested, on the one hand, in the better teaching of history, and, on the other hand, in the better preparation for citizenship and the promotion of a common culture, shall face, in the light of modern knowledge, the question of valid aims and methods in the teaching of this important subject. We shall, if necessary, forego any particular organization of the materials of our subject which seems to be inherent in it, for example, the chronological order in history."

Dr. Thorndike, speaking of the logical versus the psychological in history teaching, says: "It has, indeed, seemed indubitable to teachers as well as to writers of text-books, that the student should begin where the country began. But what has seemed so sure is very questionable. The pupil actually begins with knowledge of the present condition of his own environment plus a variable and chaotic acquaintance through talk and books, with facts located vaguely in other places and earlier times. Perhaps the story of the voyage of the parents of some pupil in the class should precede that of the voyage of Columbus."

"Chronological confusion" and "disordered historical data" come soon enough to the best pupils of the best regulated classes taught in the old formal method: witness the position of history at the bottom of the list in the college board entrance examinations. Moreover, the chronological chart, referred to above, was devised to so arrange leading events and great movements that their proper relationship would be seen, just as the mosaic, built up piece by piece, brings out at the end the completed figure.

It is also the opinion of educators that on the basis of "information" or "fact content" the sum total will be as great under this method, and will be so developed and arranged as to be more ready for use and consequently better retained in memory. The summary or "irreducible minimum" built up at the end of each project prevents their informational material from becoming scattered. These summaries are not mere outlines. Recently, when the organizing committee on the Russian project made its report it was rejected by the class because it was "just a teacher outline."

Others object to this method on the ground that it takes a great deal of time both in class and in preparation on the part of the teacher. Both these statements are undoubtedly true. The experiment has shown, however, that as the work progresses the class comes to work more speedily. They grow more accustomed to using their historical tools, and we find out quite frequently how a tool used in solving one project is employed again in helping to fashion another. For example, they understood the meaning of the term "economic boycott" in their study of the League of Nations, because they had used that term in the

project on the Progress of Labor. It was a very interesting thing to note their adaptability in using these cross-reference tools.

Others are skeptical about the use of such a method as this with the "average public school pupil." I have taught in public schools for fifteen years and have no fears on this particular point. The fact that in our cosmopolitan high schools the pupil body comes in contact more directly with a greater variety of outside interest, would be a distinct advantage in arousing interest and then proceeding to build on their apperceptive bases. The fact that such a method would necessitate adequately trained teachers is not a valid argument against the method itself. This is an old complaint, and a real one, and our administrators are faced to-day, as never before, with the problem of securing properly trained teachers in the social studies field. Professor Parker makes the statement that it will take four years of training in service in order to prepare teachers so they can handle the project method.

The writer is aware that there is little that is new in this particular approach. Others have pointed out the distinction between the "assimilative" and the "cold storage" methods in history teaching. This is simply one experiment where the project has been used as a basis in the developing of a particular period in history. As an experiment it is open to criticisms and welcomes them. After a year of careful open-minded observation of this method it is my belief that the results justify the conclusion that as an educative process it is worth giving a wider application. It leads the pupils to purpose intelligently and then guides them in planning and executing the particular project in hand. They find out how to get the information they need in the natural way, while the class room discussions and debates develop independent judgment and historical or open-mindedness.

Two Answers to the Test on the Irish Project

Which of the possible solutions of the Irish question do you favor? Give reasons.

I would be in favor of Independence. England just walked in and took Ireland. The Irish resented this, but as England was the stronger, they had to obey her. Then when England turned Protestant she forced her

religion on Ireland. The education was very poor until lately. All these things together with "Absentee Landlordism" have caused an age-old hatred between Ireland and England. I don't see how a country can get along in governing her provinces unless there is absolute coöperation and loyalty to the government. The majority of the Irish people are of Celtic descent and of the Catholic religion. The rest of the population could be represented by their leaders in the government. Then they would have to get along or get out. Being of Scotch Presbyterian descent, I feel with the people of Ulster, but I think the majority rule is best. If Home-rule were adopted every one would be dissatisfied. England would not have entire control, the north of Ireland would be very unwilling to accept that plan and the rest of Ireland would not be very well satisfied. If the present relations could be maintained, tho they probably couldn't, there would be much trouble all the time. To illustrate this, you can take the past war. England did not dare draft the Irish men, and many did not care to enlist. Thus England had a very hard time and would have been helpless had other countries not helped her. Therefore, tho I haven't a very large knowledge of the subject, I think I believe in Independence.

I think the "Present Relationship to England" is the ideal form of government for Ireland. To decide this we must consider all the people or classes of people in Ireland.

Let us begin with the North. Ulster is the wealthiest part and she is satisfied because the government as it stands is beneficial for manufacturing and is fair.

Now let us think of the South. In the past the South of Ireland has been very badly treated, but England has been trying to make amends, and facts prove that the South of Ireland is more prosperous now than ever before.

Think of Scotland. She struggled with England for a long time, but finally succumbed. She did not want to but after a while it all settled down and it was all for the best of both Scotland and England.

England could not afford to give Ireland independence because that would leave an open door for some enemy to walk in. In the case of Home-rule I don't think that it would be wise to let Ulster be dominated by the South as it would be.

England cannot give Ireland independence because some nation such as Germany might easily attack England through Ireland. Neither side favors Home-rule so what can England do but leave Ireland as she is.

Specimen Class Reports

The class was called to order in Room 305 on Friday, Nov. 21, 1919, by the president. The minutes of the previous meeting were read and

approved. We discussed the different inventors and their inventions; how one led to another. Mr. Hatch said he didn't believe any one in class really understood how a steam-engine worked. Helen Robinson then turned scientist and went to the board and explained how the inside worked successfully. Then Mr. Hatch turned artist for a few minutes and drew the steam-engine on the board showing us how it worked on the outside. The home work was assigned: to make a list of the good and bad results of the industrial revolution, and to get as many as we could find. Also what was the attitude of the government toward trade unions and the meaning of "laissez-faire"? Is there any difference between a man being "fired" from his position in a factory and a man being "fired" from his position as journeyman? We were to think about these questions for the next lesson and also about Helen Robinson's question "If the factory system is all right, why does the government make laws against it?"

The class was dismissed at 11:20.

Respectfully submitted,

MARGARET GOULD, Sec'y

The class was called to order in Room 305 on Friday, Feb. 6, 1920. The minutes of the previous meeting were read and approved. Copies of *Current Events* were given out. Then the committee, Ethel Kelly, Eleanor Lindsay, and Minnie Mehlin, who prepared the outline on the Russian project, made their report. The class did not like this report as it was too much like a teacher's outline, so they were instructed to do it over again and put in more definite facts. The comparative charts on the Governments of the United States, England and France were collected. We discussed our new project and decided on the League of Nations, but did not come to a decision as to how to word it. For home work we were to mark in our copies of *Current Events* anything that was "grist to our mill," gather all the material we could on the League of Nations, and think upon a wording for our new project.

Respectfully submitted,

NANCY WILSON, Sec'y

The class was called to order in Room 306 on Thursday, Feb. 12, 1920, by the president. The minutes of the previous meeting were read and approved. We then voted on a name for our next project. From the list of: What is the League of Nations and will it make the world safe for democracy? The League of Nations: What is it? Should America enter the League of Nations? The effect of the League of Nations on the world, we decided upon:—The League of Nations: What is it?

We discussed the method of going to work on this project and we decided to make out a chart. A copy of the "League of Nations Covenant"

and the "New Map of Europe" was given to each girl. We then went over our *Current Events*, seeing how many things there were in it about anything we are or have been working on. Mr. Hatch told us some interesting Lincoln stories. For home work we were to read over, "mull" over and write out the "gist" of the first five articles of the League of Nations. The class was dismissed at 1:20.

Respectfully submitted,
NANCY WILSON, Sec'y

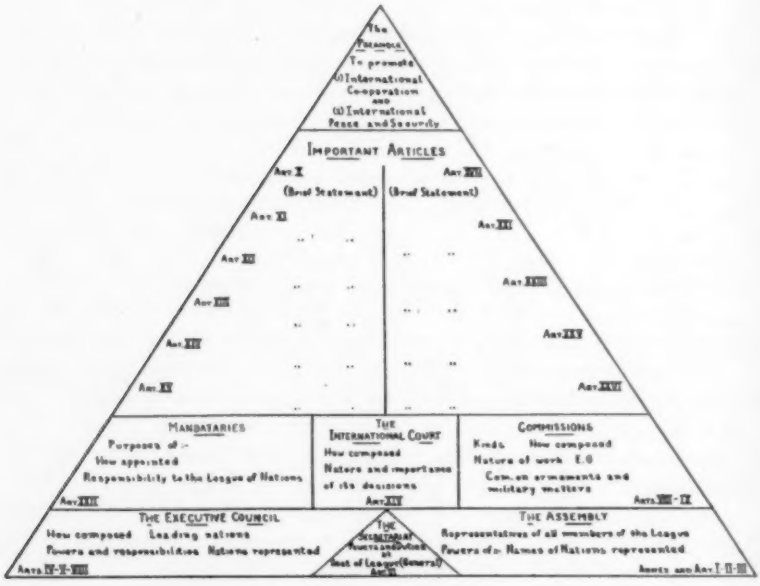

CHART OF THE LEAGUE OF NATIONS COVENANT

The class was called to order in Room 305 on Friday, March 5, 1920, by the president. The minutes of the previous meeting were read and approved. We discussed the form our charts should take, and then whether we should have another history period a week. A motion was made that we should have another history period a week, and it was amended that it be the third period on Friday. The amendment was amended that we should have no home work for that extra period. The amendment and the amendment to the amendment were passed, and as the vote on the motion was a tie, the president cast the deciding vote in favor of the motion. A motion was made and passed that we send a delegation to Mr. Pearson concerning the extra period, two girls representing the majority and one from the minority. A motion was defeated that the

chair appoint the three girls. We decided by vote to leave the selection of the delegation to Mr. Hatch, who said that the girls in favor of the motion that we have the extra period should choose their two delegates themselves and that the rest of the class should choose their representative. For home work we were to complete our writing out of the articles of the League of Nations and if possible to begin our charts. The class was dismissed at 2:00.

Respectfully submitted,
NANCY WILSON, Sec'y

The class was called to order in Room 303 on Monday, March 8, 1920, by the president. The minutes of the previous meeting were read, corrected and approved as corrected. Ellen Lindenmeyer asked whether a member of the class who was absent when a motion was voted upon could vote when she returned. The president ruled that she could not. The decision of the chair was appealed from and discussion as to whether the decision of the chair should be sustained followed, in which we practised Parliamentary law, as far as we were able. We then voted that the decision of the class should be sustained. After Mr. Hatch had talked to us about reconsidering a motion, a motion was made and seconded by one who had previously voted in the majority that we reconsider the motion that we have another history period a week and that it should be the third on Friday and an unprepared lesson. This was passed. Then the motion that we have the extra period was open to discussion, after which it was voted on and defeated. Mr. Hatch gave out the home work, which was to prepare all the material we could for our charts. The class was dismissed at 12 o'clock.

Respectfully submitted,
NANCY WILSON, Sec'y

SUMMARY OR "IRREDUCIBLE MINIMUM"

PROJECT: *Why is Ireland demanding Independence?*

I. Physical Characteristics of Ireland (The Emerald Isle. Hibernia).
   1. Area = State of Maine. Ireland an Island; significance of,
   2. Surface: Saucer shaped, mountains around the coast, central part consists of plains and bogs; in the north mountainous.
   3. Climate: moderately warm all the year round; much rain.
   4. Rivers: Shannon, Boyne.
   5. Ports: Dublin, Belfast, Cork, Londonderry.
   6. Occupations: Farming, fishing, dairying, manufacturing linen and lace.

II. Early History:

1. *a.* The Celts: The social life before Christian Ireland was well developed. Women were highly esteemed. Poetry and music cultivated.
   b. St. Patrick introduced Christianity end of 4th century. Set the example in building churches, monasteries, schools.
   c. At the downfall of the Roman Empire missionaries and teachers from Ireland kept Christianity and classical learning alive in Britain and Western Europe.
   d. Struggle with pagan Norsemen (1000 A.D.). Brian Boru.
2. Henry II and his Normans invaded Ireland (1171) with no other aim than plunder. They gained a foothold, seized much land and made many raids in spite of the opposition of the Irish chiefs.
3. Henry VII (1500) continued the conquest of Ireland. Poyning's law was passed destroying the independence of the Irish Parliament.
4. Henry VIII, Edward VI and Elizabeth (1500–1600) tried to force on Ireland the doctrines of the Protestant Revolt. There was bitter warfare and more estates were confiscated.
5. James I seized and confiscated nearly all of Ulster. This land was settled by English and Scotch Protestants. The flourishing Irish wool trade was destroyed because it interfered with the English, but was replaced by the manufacture of linen, one of the most valuable industries in Ireland to-day.
6. On the execution of Charles I the Irish came out for his son Charles II. Cromwell put down the insurrection that followed with great severity. Drogheda captured and garrison slain. "The curse of Cromwell on ye!" Nearly the whole of Ireland confiscated.
7. James II, a Catholic, met with favor in Ireland who sided with him against William of Orange. At the Battle of the Boyne River (1690) James was defeated. Siege of Londonderry (105 days). The "Broken Treaty" of Limerick.

III. Ireland in the Eighteenth Century.

1. During this century Ireland suffered under laws which destroyed her religious freedom and ruined her trade.
2. "Absentee Landlordism"; six-sevenths of the land in Ireland belonged to English nobles who never set foot on their estates.
3. "Tenants at Will"—the landlords had a right to turn the tenants out of their homes at will.

4. "Rack Rent"—tenants would have their rents raised if they improved their property.
5. The Irish formed secret societies to oppose the landlord's agents.
6. Great Irish leaders of this century: Henry Flood, Jonathan Swift, Henry Grattan, Edmund Burke. These men demanded reforms from England, and legislative freedom was granted Ireland in 1783 and trade restrictions removed.
7. Although Ireland gained legislative independence for a short time its parliament was so unsatisfactory that little benefit resulted. A rebellion was planned and put down with great cruelty.

IV. Union with England (January 1, 1801).
1. Under Pitt's leadership the Irish were deprived of their own parliament.
2. Were allowed (*a*) 100 representatives in the English House of Commons, (*b*) 32 in the House of Lords.

V. Struggle for the Repeal of the Act of Union.
1. Robert Emmett organized an unsuccessful rebellion for the repeal. He was captured and put to death.
2. Social and economic conditions in Ireland very bad due to the evils of the land system. Excessive taxation and destruction of industries.
3. Daniel O'Connell formed the "Catholic Association of Ireland" (1823). Great mass meetings advocating emancipation.
4. Act of emancipation; 1829 Catholics admitted to Parliament, although franchise was raised. This was the first step in the resurrection of Ireland.
5. Introduction of National School System in 1831.
6. The "Young Ireland Party" was formed and kept up the agitation for Repeal.
7. The "Black Forty-Seven" (1847): the Irish famine due to the blight of the potato crop. This was followed by a great and steady tide of immigration to the United States. Between 1850–1900 4,000,000 people came to United States.
8. The Fenian Movement. Both in United States and Ireland. In the United States it was made up of soldiers who had fought in the Civil War.
9. In 1869 came the disestablishment of the Church of England in Ireland.

10. Charles Stewart Parnell and the Land League (1879). Objects: Fair Rent; Fixed Hold; Free Sale. Establishment of the Land Court.
11. The Phœnix Park Murders.

VI. The Land Purchase Acts.

1. 1885. $25,000,000 placed at the disposal of the Irish farmers by Parliament.
2. 1888. $25,000,000 added.
3. 1891. $170,000,000 added.
4. 1903. Land Purchase Act, $500,000,000 (buying out landlords)
5. 1909. Land Purchase Act, $260,000,000.

VII. Gladstone and Home-rule.

1. His mission,—"To pacify Ireland."
2. First Home Rule Bill (1886) failed to pass Commons.
3. Second Home Rule Bill (1893) failed to pass Lords.
4. Third Home Rule Bill (1914) passed Parliament.
   a. The protest of Ulster.
   b. Revolt of 1916.

VIII. Great leaders of this century: John Redmond, Horace Plunkett, "President" de Valera, Edward Carson

IX. The Sinn Fein ("Ourselves alone") movement for an Irish Republic.

X. Possible Solutions:

1. The Present Status.
2. Home Rule Plan of Lloyd George.
3. Independence.

Note: These summaries were first drawn up by a specially appointed committee and reviewed by the instructor. Then each student was given a copy for her civic note-book.

On the following page is shown the chart of Comparative Governments drawn up by members of the class for their note-books.

A CHART (15 x 35) ON

COMPARATIVE GOVERNMENTS

	United States	England	France	Other Nations
Nations	(Flag)	(Flag)	(Flag)	1. Japan 2. Switzerland 3. Italy 4. Brazil 5. Belgium 6. Spain 7. Germany (before 1914) etc.
Head	President: Woodrow Wilson. Qualifications. Term, Powers, etc.	King: George V. Hereditary Monarch. Powers, etc.	President: Paul Deschanel. Term, Powers, etc.	
Cabinet	Appointed by President. List name and position of each.	Prime Minister: Lloyd George. Method of election. Responsible government.	Prime Minister: Millerand. Powers.	
Upper House	The Senate: Qualifications. Term. How Elected Senators from N. Y.	House of Lords: How composed. Present day powers. Act of 1911	The Senate: Number, term. How elected. Powers.	
Lower House	House of Representatives: Qualifications. Term. How Elected. Powers, etc. District representative.	House of Commons: Number. Term. How elected. Importance of.	Chamber of Deputies: Number. Term. How elected. Importance of a "bloc."	
Remarks	The Supreme Court. The Constitution.	The Unwritten Constitution *a*. Magna Charta. *b*. Bill of Rights. *c*. etc.	The III Republic and the Constitutional Laws of 1875.	

RECENT DEVELOPMENTS IN CHILD FEEDING *

By MARY SWARTZ ROSE

Associate Professor of Household Arts, Teachers College, Columbia University

We, the people of the United States of America, have been singularly free from any widespread nutritional disease. We have not had famine with its general impoverishment of health; we have not even had serious shortage of some food staple whose absence brings sickness. This is because of our large and varied food supply. In Russia, before the war, shortage of the potato crop was regularly followed by an outbreak of scurvy, so limited in variety was the diet of the Russian peasant. And I scarcely need to remind you of the suffering in Labrador where delays of spring ships with fresh food mean subsisting on bread alone for weeks, a condition sure to produce scurvy. We have never had large masses of the population living on so narrow a nutritive margin as to be constantly developing beriberi, the situation in part of the Orient. We have, it is true, had some regions where pellagra menaces, and we now believe dietary deficiencies to have a distinct relationship to this disease. But, on the whole, we have not been troubled by specific diseases due to faulty nutrition.

Nevertheless, we have not had the highest ideals of health. As a pediatrist of high reputation and wide experience said recently of some of his child patients, "They are thought to be well because they are as well as they ever have been." When by themselves they seem normal, but when compared with the best types to be found, they are plainly below par. Among the adult population, too many people of thirty-five or forty are as old as they should be ten or fifteen years later. They are out of the race when they ought to be at the height of their powers. We are too inclined to accept the incidence of so-called old-age diseases, e. g., hardening of the arteries, heart lesions and kidney

*Presented at the Home Economics Conference of the Michigan Agricultural College, June 30, 1920.

defects, as inevitable when we ought to be taking heed to our health and diet with a view to eradicating them. There are life insurance statistics warning that such diseases are with each succeeding decade attacking younger and younger people; they are now said to be as frequent in people of forty as they were thirty years ago in people of sixty. We ought to have such standards of health as would make us uncomfortable to be out of health, just as we feel uncomfortable if our clothes are out of fashion. Is this due to faulty diet? We should at least give ourselves the benefit of the doubt and take the best diet we know.

This is a significant time in the history of nutrition. While food is not all of health by any means, the scientific researches of the past decade have made us realize that it is a more directly controlling factor than most of us dreamed. Though he has not given us the data, Professor McCollum has repeatedly stated of late that he has found food mixtures which when fed to rats would produce growth to full adult size from weaning time to maturity, but that subsequently the animals decline (grow old) and are carried off by infectious disease (tuberculosis). The period of decline he states to be held off better by some diets than by others. We shall await with interest details on this point. We already know that animals can be stunted at will by withholding any one of the recognized dietary factors—an adequate energy supply, protein suitable in kind and amount, mineral constituents such as calcium, iron, and others to the number of nine; growth-promoting vitamines, of which three are known. Our chances of good nutrition are immensely increased when we know how to choose. A hit-and-miss system is as likely to miss as hit. When rats are given in one dish a suitable food mixture prepared by the expert, they thrive through three, four, or more generations. When the same foods are given in separate dishes, they pick out the ones they like and leave the rest. As a result they soon decline and die. Most people are inclined to argue about the hit-and-miss system like one of the boys in a Brooklyn nutrition class. The leader was trying to impress the fact that tea and coffee are bad for children. This lad objected, "I have an uncle that is a prize fighter and he has drunk tea and coffee all his life." This kind of logic does not take

account of the "misses," which, from health surveys of a considerable number of children in the last few years, amount to from ten to thirty-three per cent. of the child population.

The accumulation of scientific knowledge of nutrition, the low state of health revealed by health examinations for the army, the educational work of such organizations as the Children's Bureau and the Child Health Organization cooperating with the Department of the Interior, and the desire of agencies active formerly in war work to serve the civilian population in peace, have combined to engage us in a sort of national health campaign. The newspapers, so quick to mirror the popular drift, jest about "health as a disease":—

"The health faddists get up at impossible hours. They go out in silly little suits and run marathon heats before breakfast. They chase around barefoot to get the dew on their feet. They hunt for ozone. They bother about pepsin. They won't eat meat because it has too much nitrogen. They won't eat fruit because it hasn't any. They prefer albumin and starch to huckleberry pie and doughnuts. They won't drink water out of a tap. They won't eat sardines out of a tin. They won't use oysters out of a pail. They won't drink milk out of a glass. They are afraid. Yes, sir, afraid. Cowards!"

This simply indicates that a good many people are thinking about health, and are going to find out whether they really have it or not, and if not, why not.

We can predict that the "why not" is going to send many of them back to their childhood days for causes. In childhood the foundations of health are laid. In childhood, power to resist disease is developed. In childhood, the *habits of health* must be formed. We do not, as adults, want to be pestered with such thoughts as have just been attributed to the health faddist. We want to have such a habit of life established as will free our minds for other things. As civilized beings we have already learned in part to do this. We eat three times a day and save ourselves hunger pangs before meals and fits of sleepiness afterwards. Instead of gorging, then sleeping for hours and going hungry till our discomforts drive us to the chase again, we eat by the clock from stores of food on hand. But we must go much farther if we are to have, not the survival of the fittest,

characteristic of uncontrolled nature, but *all surviving and fit*, the true test of a vigorous civilized race. Now just as the progress of educational method is marked by increasing insistence on the study of the child mind, so the progress of human health is accelerated by the study of child health.

The science of nutrition has made rapid strides in the past ten years. We have now considerable data on the child's energy requirement. Since the total energy requirement of a growing child has four quotas, basal metabolism, influence of food, exercise and growth, development of standards requires investigation of all four of these variables. Sherman and Gillett have admirably summarized the experimental data on total energy requirement in *Food Allowances for Healthy Children*. Benedict and Talbot have recently given us some of their conclusions from eight years of work on basal metabolism from birth to puberty and promise full data soon in a publication of the Carnegie Institution of Washington. They have studied 108 boys and 70 girls, repeating their determinations at intervals in the life of the same child as far as possible. They observe that the basal metabolism is approximately half the total metabolism. Their studies of the quotas for growth and activity are interesting. For growth during the first year they suggest 36 per cent. above the basal metabolism as an average for the first three months, 26 per cent. for the second three months, and 21 per cent. for the third three months. In other words, the baby in the first year may store more than a third of its food in growth. For activity they suggest from hourly studies through the day on two children an average of 25 per cent., but of course there will be a great deal of individual variation in this quota. Many atrophic (marasmic) infants will not thrive with less than 150–200 calories per kg. where the healthy child needs 80–100. Lack of total calories is a common cause of undernutrition. Sherman states that among poor families in New York City a shortage of total calories is the most frequent dietary deficiency. Miss Gillett of the Dietetic Bureau in Boston, when asked recently what prescription her undernourished children needed most frequently, replied: "Calories and rest." The two go hand in in hand—rest cuts down caloric expenditure,—more food increases caloric intake. Children who go without breakfast

do not get enough food in the other meals of the day to meet their high requirements. Children need keen appetites. If they eat between meals or eat candy and drink tea and coffee they blunt their appetites and may become undernourished because they do not take enough total food. The more undernourished a child gets, the less appetite he has, so a vicious circle is set up. There are many good reasons for regularity in meals, but none better than the production and conservation of a normal appetite. Fatigue and excitement are other factors in lack of appetite so that rest may be as important as the food itself.

The question of how many calories is an individual matter. We must find out just what John or Jane is getting. And we must have some *definite health standards* by which to measure John and Jane's progress. The movement for weighing and measuring children as a part of the school health program has been so vigorously fostered that this aid to health diagnosis is widely known. We are using the best statistical norms we have, but they need testing and revision as yet. Into the conventional net of "10 per cent. or more underweight" fall a few who are not undernourished, but many more that are—and these are often 20 and 25 per cent. below normal weight. We are justified in demanding physical examinations for all children 10 per cent. or more underweight. There are often obscure causes of undernutrition which seriously interfere with normal growth. Some of our students had an interesting experience with a little boy, apparently healthy, but so much underweight that they were moved to take him to a clinic. There the physician laughed at the thought of examining such a well-looking child, but owing to the girls' insistence, made the examination and found distinct cardiac disturbance. The child was put under supervision and in six weeks showed his improvement by substantial gain in weight.

Increasing total calories is not the sole dietary remedy for undernutrition. The quality of the diet must be considered too. The newer knowledge about proteins is now more or less familiar to all, *i.e.*, that they are complex compounds built from seventeen different kinds of amino acids. When protein food is digested it is like unstringing a lot of beads of different colors and putting them into a box. To make a new protein, you pick out the colors

of beads according to the pattern. If it calls for blue beads and you have none in the box, you cannot make it. Or if it calls for ten and you have only four, you are not able to progress very far. So we distinguish proteins which will support growth and those which will not and also compare the quantities of different kinds required, according to their amino acid content. Milk proteins are worth three times as much for growth, pound for pound, as the proteins of the cereal grains, and nearly six times as much as the proteins of peas or navy beans, according to McCollum. One protein may have certain amino acids needed for body building and lack others. Thus two proteins, each incomplete in itself, may in combination yield a full quota of amino acids required by the body. A little milk added to a large amount of cereal protein will greatly enhance the value of the cereal. It is like adding a few bright colors to the boxful of dull beads. We can use the dull ones to build up the pattern as soon as a few missing colors are supplied. Eggs, like milk, are of high nutritive efficiency. Meats also give valuable supplementary proteins, though not as efficient by themselves as eggs or milk. Because of these facts, we emphasize the liberal use of milk whenever body proteins are to be built, and the great economy of cereal proteins supplemented by milk. On the other hand, we discourage dependence on cereals and legumes for the whole of the protein supply. Some cereals are more efficient than others, and some legumes (such as peanuts and soy beans) are of a high grade of efficiency; but, on the whole, results from these foods alone are not entirely satisfactory.

While a sufficient supply of biologically efficient protein is essential to good nutrition, it does not follow that we should say "the more the better." The waste of energy as heat from a high proportion of protein in the diet has been measured with much care by Lusk, and both Holt and Hoobler have remarked in their studies of infants the failure to gain weight and other unfavorable symptoms when one fourth or more of the total calories are from proteins. A quart of milk per day gives all the protein an average child of one and a half years requires and half as much as an adult needs. Hence when milk is freely used, other foods for the sake of protein need not be emphasized.

It has long been recognized that we must have a certain supply of mineral constituents, but one of the striking results of modern research has been the stunting of animals by withholding a single mineral element, such as calcium. Several years ago, Sherman from his analysis of some two hundred American dietaries concluded that next to total calories the most frequent shortage was in calcium. McCollum has pointed out the deficiency of the cereals in three elements, calcium, chlorine, and sodium. Where cereals, tubers, and meats plus sugar and fat are the chief foods used, there is danger of calcium deficiency. We do not know yet the specific effects of such calcium deficiency, but animal experimentation makes us believe that a shortage of calcium is a serious defect in a diet. Rickets is a disease in which there is assuredly a dietary factor. This is not, however, as popularly supposed, a calcium deficiency. There is an inherent difficulty in utilizing calcium even when liberally supplied. Holt and his coworkers have reported a correlation between the calcium absorption and the fat intake, and set up a tentative standard for artificially fed infants, 0.045 to 0.06 of a gram of calcium oxide for every gram of fat in the diet, the fat not to be less than four grams per kilo of body weight. They note that the absorption of calcium, less in rachitic than in healthy infants, is regularly increased by the administration of cod liver oil. Before a recent meeting of the American Pediatric Society, Howland reported that the calcification of bone induced by administration of cod liver oil to rachitic infants, could be clearly demonstrated by means of the X-ray.

Aside from the question of rickets, everything points to the necessity of liberal calcium in the diet of children, and there is no way of getting it so practical as the generous use of milk. A pint of milk, containing nearly one gram of calcium oxide, furnishes a liberal supply for an adult for a day, a quart a generous supply for a child. It would seem, as will be shown later, that the use of calcium may be controlled by some vitamine.

I believe it has been thrilling to every student of nutrition to learn how delicately in animals the rate of growth can be controlled through the diet. Nothing has aroused more enthusiasm for the pursuit of knowledge in regard to growth than the discovery of vitamines. Irregularly distributed in food mate-

rials, they make one think of the so-called "charades" of childhood magazines—"My first is in leaf but not in stem, my second in tuber but not in root"—mysterious substances, still, after a decade of pursuit; like enzymes, known by their works but not by their substance—no wonder they fire the imagination! You will recall that historically scurvy was the first human disease conquered through diet. In the study of the vitamines the antiscorbutic one was long vaguely termed a "principle"; only within the past year has it been given a name—"Vitamine C." To Hess we owe a convincing demonstration that scurvy is cured by a substance acting within the body proper, not by a mere laxative. He cured a baby of scurvy by injecting orange juice directly into the blood stream. He has also reported the extraction of the vitamine from the orange with absolute alcohol. Time forbids reviewing in detail the extensive studies of foods yielding this vitamine, and of the conditions under which it can be preserved—studies greatly stimulated by the war, especially in England, owing to the development of scurvy among the British soldiers in Mesopotamia. Chick and Hume, at the Lister Institute in London, have shown that fresh yellow turnip juice is as effective as orange juice, but carrot juice only one-tenth as effective. During the war, yellow turnip juice was recommended for infant welfare stations in London as an economical antiscorbutic. Subsequent to the discovery of the very high antiscorbutic property of the tomato, Hess and his associates have given canned tomato juice to babies from one month old upwards with marked success. Dr. Hess has supervision of the infants in a large orphan asylum. Babies are admitted at any age. When they arrive, each is put in a glass-walled chamber in its own little white bed, tucked up as only hospital nurses can tuck up beds. It is a curious sight to look down a corridor lined with these rooms, some of the babies awake and placidly investigating, others sound asleep, and others howling—for exercise! After a short stay here, they are assigned to wards and may remain till they are five years old. This long residence under controllable conditions gives a wonderful opportunity for the study of child nutrition. While, as I said in the beginning, we have no scourge of scurvy in this country, the researches of Hess, Drummond, Harden and Zilva, and others have revealed the possibility of

latent or subacute scurvy as a form of malnutrition not at all uncommon in infancy and early childhood. Failure to gain weight at a normal rate, signs of anemia, beading of the ribs, and other symptoms suggesting rickets have been found to characterize these cases. Cow's milk, even when fresh, is not very high in antiscorbutic power. It takes a pint a day to protect a baby. When pasteurized, of course, the protective power is reduced. The drying of orange, lemon and tomato juice has been accomplished with little loss of antiscorbutic property. At present it is necessary to study each food under varying conditions, and not attempt to guess whether it is antiscorbutic or not. Every child should have regularly in his diet food known to be so. Oranges, potatoes, cabbage and tomatoes are all most practical for this purpose. Unheated milk is not generally practical for sanitary reasons.

The common foods in the American dietary usually furnish an abundance of that vitamine, most markedly influencing growth, *i. e.*, the "Water-soluble B" or antineuritic vitamine. It is very widely distributed in vegetables, especially leaves of plants, and probably in fruits, though only a few have been investigated. The tomato is rich in it. When milk is the only dietary source, considerable quantities, a pint or more a day, should be given. There are a number of instances where the growth of infants on modified milk has been accelerated by the addition of this vitamine. Before the war, Eddy had shown the stimulating effect of pancreas extract on marasmic babies in the New York Hospital, and since his return from France he has been securing similar results with the same vitamine from the navy bean. Daniels and Byfield have reported improvement in rate of growth of babies from addition to their modified milk diet of a vegetable soup, and also from orange juice in amounts from over 15 up to 45 c.c. per day. Such researches have modified practice in infant and child feeding materially. The concentration of modified milk is increased more rapidly so that artificially fed babies get whole milk sometimes by the seventh, commonly by the ninth month. Vegetables are included in the diet of infancy in the form of juice or carefully strained soups. Ten or fifteen years ago they did not appear much before the third year, and the tomato was even then taboo!

The third known vitamine, having first been found in association with certain fats, is known as "Fat-soluble A." It does not so quickly affect the growth of animals as does water-soluble B. In rats and rabbits, its absence does in time retard growth and result in eye disease, the eyes becoming swollen so that they cannot be opened. What role it plays in human nutrition is not yet altogether clear. The eye trouble has been observed in Denmark among rural children fed separator skim milk, and also in Japan among children subsisting largely on rice and small amount of meats, no eggs, milk or leafy vegetables. It disappeared when chicken liver or whole milk was given the children. Other confirmatory evidence comes from an institution in Rochester, N. Y., in which the weights of the children were kept for a year. During six months butter was given, the other six months butter substitutes. A considerable number of children showed decrease in weight in the second period. On the other hand, Hess reports that infants 5 to 12 months old, given a diet of highly skimmed milk (Krystalak, 0.2 per cent. fat), cane sugar, yeast, orange juice, cottonseed oil, and (for older children) cereal, did well for a period of 8 to 9 months. This indicates that either a small amount suffices, or that the deficiency has to be maintained over a period of years. This is in harmony with our experiences with rats. If put on a diet with only a trace of fat-soluble A, they will, if partly grown, continue to grow slowly and will not develop eye disturbance in 10 to 12 weeks. Till we have further evidence, it is wise to see that the fat-soluble vitamine is liberally supplied. As a result of experiments on puppies, Mellanby believes rickets to be due to a lack of fat-soluble vitamine, and Chick and Hume have named it the "anti-rachitic vitamine." But Hess does not find infants on the skim milk diet already referred to developing the well-established signs of rickets. Moreover, rickets develops in infants receiving large quantities of milk, and is not relieved by cream or leafy vegetables. There is a strong impression among clinicians that excess of butter or cream even helps to produce rickets. Hess has reported that he can produce at will in 6 or 8 weeks the symptoms of rickets in babies by a diet of protein milk, orange juice, sugar and cereal. Cod liver oil is a specific cure. Have we in it a fourth vitamine?

I have tried so far to point out some of the lines of active investigation bearing on the problem of child feeding. For an admirable survey of our knowledge of the first year of life, I commend to you Morse and Talbot's *Diseases of Nutrition and Infant Feeding*. There is nothing comparable to it for the later years. Only in broad general terms do we know children's food requirements. These suffice as guides for feeding the average healthy child. But there are in every community a considerable number that need special attention. It will probably be conservative to assume 15 to 35 per cent. of underweight children in any locality. We need therefore two things—education for all in child health, and especial attention to those who are physically below par. The Child Health Organization has a health propagandist, the Health Fairy, whose mission is to interest children in health. She tells the children about how the witch "Ignorance" destroyed her house, and how in sadness she wept, till the bird "Education" told her it would fly to all the children and tell them to build her a house. Every time they keep a health rule, they add a brick to this little house. And so the children are taught the rules of the health game: Long hours of sleep, windows open at night, cereal for breakfast, food at regular times, vegetables to eat and milk to drink. This is the A B C of health education. We must interest the child, give him some definite things to do, and some way of testing his progress. Weighing and measuring serve the last purpose admirably. Children weighed every week watch their gains and losses with keenest interest. Sometimes fathers object because the children are always talking at home about their weight. They can be taught the reasons why their weight goes down and what to do to make it go up. Often they will make splendid struggles to increase. Johnny W. didn't like oatmeal but he vowed that if oatmeal would make him gain, he would eat two dishes every morning. He did, too, and his weight went up to his great satisfaction. It is not at all safe to assume that every child will eat enough. Irregularity, as I have already said, is a great factor in underfeeding. By a little food now and then (especially if it is candy, ice cream cones, chocolate, etc.), the appetite may be satisfied without the child having anywhere near the amount of food he ought to have.

Babies have been greatly helped by the education of mothers

to longer and regular intervals between meals. We must also make mothers take an interest in the health of their children after they cease to be babies! The nutrition clinic of the hospital and the nutrition class of the home economics or social worker are proving valuable in this process of educating both mother and child. The nutrition clinic offers a place where the child's nutritive condition can be diagnosed and the mother and child together (for the mothers come with their children to the hospital) can be instructed in detail. Usually there is need of special attention to breakfast. Too often there is no family meal, only the snatching of food from table and stove at will, the pot of coffee and the loaf of bread constituting the meal. This is not good for adults—it is disastrous for the children. A warm cereal at a definite time is a distinct improvement. Then if the coffee is replaced with milk or cocoa, we have the beginning of a wholesome diet. We want children to refrain from tea and coffee because they are undesirable in themselves, but still more because they take the place of milk. If health is too remote a reward, and even promise of gain in weight makes no appeal, often some concrete reward will help—stars on the weight chart, for example. When a boy is ambitious for an unbroken row of stars, he will steadfastly refuse coffee and demand milk, sometimes so insistently that father inquires when the teacher comes to his shop, "What makes my child talk so much about milk?"

The nutrition class aims to give to children in groups the instruction which might be meted out to them privately and individually in the nutrition clinic. It has the advantage of being able to help children who are not so likely to go to a hospital clinic. Such groups are frequently recruited from the public schools. They are also recruited from settlements and other social agencies. The contact with the mothers may not be at the class but through the child and some worker who goes to the home at frequent intervals to explain the work and study the child's environment. The ages at which such education seems most effective are from eight to twelve, children old enough to control their diet somewhat and to understand simple food teaching. Such teaching necessitates the development of a regular educational program. We begin with simple lessons about foods which we think ought to be staples in their dietaries.

We weigh the children, note gains and losses, keep a chart record and give each child a tag to take home with his weight record. Then we talk about the food of the lesson and how good it is for them, and finally prepare and serve a portion to each child, sending a copy of the recipe home.

One of our favorite first lessons at the Morningside Nutrition Center where Teachers College students of dietetics are doing practical field work, is "milk." We try to create an enthusiasm for it, perhaps through a song, "Here's to good old milk, Drink it down," or through our Health Toast,

> "Here's to your good health and mine,
> To make us grow this milk is fine;
> A cup at morn, at evening too,
> Will bring good health to me and you."

The first time this verse was used we had a class of children in what used to be a corner saloon, and each child stood up with his cup of milk (real milk) in hand and gave this toast in a fashion that put to shame any former toast in that place.

After half a dozen such lessons on simple foods, we may begin to teach calories. We have colored charts with pictures of 100 calorie portions and a "calorie yardstick" to give the idea of a unit of measure. We have had simple rhymes teaching a desirable number of calories for breakfast, dinner, and supper. We have served our food in portions representing 25 or 50 calories, and we have tried to get the children to count up their own at home. They get the idea of calories quickly, but it is very difficult to get from them any accurate record of what they have at home. For the facts, we depend on home visiting.

The little story of the milk fairies has been well received, and so have lessons in which butter, junket, and cottage cheese were made. These were a part of a series on food constituents, proteins, fats, carbohydrates, mineral matter, and vitamines.

Parents very frequently complain that their children refuse the kind of food they ought to have. Of course they do not realize that it is because they have not really trained them in food habits at all. Young mothers are often amazed that they have to teach their babies to eat from a bottle, take orange juice, cereal, etc. Training in food habits is as truly educational work

as training to read or write. One must repeat the reading lesson many times before a child recognizes a word, and one must often repeat a food many times before it is acceptable as a regular part of the diet. The wife of a nutrition expert said the other day that she had at last (after five years) succeeded in teaching her boy to eat bread and milk. How many mothers persist like that? Along with education of the child in the nutrition class must go explanations to the home and often instructions to the mother not only as to what the child ought to have but how to provide it. It is not possible to have busy mothers coming to the class—in fact, a small homogeneous group of children, to my mind, makes the ideal class—but the mothers must know what is going on and be encouraged to help their children, to meet their demands half way. The home visiting is quite as important as the class work. Even when done by novices it is much better than none. Social service training makes such work much more effective and is being sought more and more by home economics workers.

Besides the educational work of a nutrition class, there must be some of the features of the clinic—a thorough physical examination, and the connecting of the child with the right agency for correcting defects. Sometimes these are quite obvious, teeth or tonsils, possibly eyes or nose; again they are very obscure, taxing the diagnostic facilities of a big hospital. The approach to the children must be studied too. In one group where the children were subacute tuberculosis cases mostly, one boy was utterly unresponsive for a long time. Finally the leader discovered that his father and brother had died of tuberculosis and several of his brothers and sisters had it, so he thought he was doomed and it didn't matter much what he did. She finally convinced him that he didn't have to have it, and he said he would work his head off to obey her rules if he didn't have to have it! In consequence, he has already made some significant gains.

This practical work with children is so new that we can hardly say what direction it is going to take. Much can be done in school—the old teaching about bones being replaced by training in health habits. New York State has a nutrition expert specially to help the teachers in this work. The school nurse

is often in the best position to work with the child needing individual attention. We need more such and they should have training in nutrition. Just as the school lunch was often introduced by some outside agency, such as a woman's club, so this nutrition work is being tried out in the classes which I have been describing. This is a good way to study the situation and develop methods. Some such classes can probably always be conducted with profit. But it would seem better to make this teaching how to live a part of the school program as fast as possible.

We need to look after the children of pre-school age. The task of the school might be much reduced thereby, and better work done by the children with less effort. It may be that these can be handled at nutrition centers, to which mothers can come freely for consultation. The more I work in this field, the more I am impressed with the knowledge needed to cope successfully with malnutrition. The physician, the nurse, the trained social worker, the expert teacher, all sorts of special agencies must somehow be fused by a big heart that reaches out to all the children, makes them know and love the nutrition worker, and spread her fame so that others sidle up to her in the street when they have never been near the class to say, "Teacher, *I* drink milk!"

COLLEGE NEWS AND DEPARTMENTAL NOTES

EDUCATIONAL ADMINISTRATION

Professor Strayer delivered a series of lectures during the summer at the State Normal Schools at Gunnison, Colo., Kearney, Neb., Emporia, Kas., Greeley, Colo., and at the University of Nebraska, Omaha, Neb.

The organization of the department of educational administration for the present academic year includes, in addition to Professors Strayer, Engelhardt, and Evenden, four new associates in educational administration—George W. Frasier of Cheney, Wash., formerly director of research at the Washington State Normal School; Rollo G. Reynolds of Cambridge, Vt., formerly with the Vermont State Board of Education; Guy C. Gamble of Republic, Mich., formerly director of vocational education and extension worker, Menominee and Chippewa Counties, Mich.; J. H. Holst of Bozeman, Mont., formerly principal of secondary education and director of summer session at Montana State College.

The school board of the city of Baltimore on September twenty-fifth unanimously elected Dr. George D. Strayer to direct a survey of the public schools of the city of Baltimore.

Professor Engelhardt delivered a series of lectures last summer at the Dona Ana County Teachers' Institute, Las Cruces, N. M., and at the Teachers' Institutes at Tulsa and Okmulgee, Okla.

Superintendent Fred M. Hunter of Oakland, Cal., recently elected President of the N.E.A., has appointed Professor George D. Strayer chairman of the Legislative Commission, which will further the passage of the Smith-Towner Bill by the next Congress. In connection with this work, Dr. Strayer has the organization of a group of laymen well advanced which will work actively for the bill.

Dr. Strayer addressed the annual meeting of the N.E.A. at Salt Lake City and made the final report for the Committee on the Emergency in Education and the Program for Readjustment During and After the War.

Professor Evenden gave a series of lectures last summer at the Dona Ana Teachers' Institute, Las Cruces, N. M.

Mrs. Rita C. Braunfield, who has been Dr. Strayer's private secretary for eleven years, has resigned. Her position will be filled by Miss Mabelle Campbell, of Washington, D. C.

On February 24, 1920, a conference of secretaries of chambers of commerce and school superintendents was held at Cleveland, Ohio, at the invitation of the American City Bureau of New York to discuss the coöperation of civic and commercial organizations with city school officials. A National Committee for Chamber of Commerce Coöperation with the Public Schools was organized with Professor George D. Strayer as chairman; H. S. Weet of Rochester, N. Y., as vice-chairman representing school superintendents; H. A. Davidson of Erie, Pa., as vice-chairman representing chambers of commerce; and Fred A. Richardson, secretary of the American City Bureau, as secretary of the committee. It was decided that the most effective coöperation could be secured only through a knowledge of the actual facts concerning the school situation. A series of inquiries has been planned, to collect facts necessary for publicity campaigns to acquaint the tax payer with the public school system and its needs. During the past spring and summer, the data from the first inquiry "Salaries, Experience, and Training of Teachers and Other School Employees" have been collected and compiled by M. G. Neale and G. C. Gamble. Professor Evenden has recently completed the interpretation of this material which is now in press.

Dr. M. G. Neale, an associate in the department of educational administration last year, has been appointed professor of educational administration at the University of Missouri, Columbia, Mo. Dr. F. W. Hart, another associate, has been appointed associate professor of education at the University of California, Berkeley, Cal.

The efficiency of the department will be greatly increased by an electrically operated mimeograph, a mimeoscope, a tabulating

Underwood typewriter, and a Monroe Calculating Machine, which have been installed.

EDUCATIONAL SOCIOLOGY

The Bureau of Publications has just issued Professor David Snedden's *A Digest of Educational Sociology* (257 pages, price $2.25). The Digest is a survey of the entire field of educational sociology including introductory chapters dealing with social structures and functions and passing to the consideration of various phases of education as a means of conserving and improving social values. A number of chapters are devoted to analysis of problems of curriculum for various age groups from four to twenty; and others to an analysis of the problems of finding valid social objectives for the various subjects now found in school curricula.

Mr. A. N. French, formerly of Oregon State University, who attended Teachers College last year, has commenced his work as professor of sociology in New Hampshire College. He writes that over two hundred students are enrolled in his department and that he has been appointed acting dean.

ELEMENTARY EDUCATION

Professor Frank M. McMurry after absence of a year and a half has returned to direct his work in the supervision of instruction.

Professor Milo B. Hillegas after serving for four years as commissioner of education in Vermont has returned to Teachers College where he will devote all his time to work in elementary education. He will have general supervision of the major course in elementary school supervision and will coördinate the various problems of the work in this field.

Professor Bonser while continuing his courses in elementary education will give two courses in practical arts education for graduate students. These new courses in practical arts education are intended to meet the growing needs of advanced students in conducting research work in practical arts of a primarily educational character.

ENGLISH

Miss Amy Irene Shaw, who received her Bachelor of Science degree in 1912 at Teachers College, has been appointed as assistant in the English department. Arthur Gordon Melvine, graduate of Dalhousie University, A.B. 1916, and a graduate student at Teachers College last year, has also been appointed assistant in the department.

The class in high school English methods has been divided into two sections grouping those who are experienced and inexperienced. The latter under the direction of Professor Abbott is making a close, first-hand study of the work in the Horace Mann High School.

FINE ARTS

Mr. George J. Cox has returned to Teachers College after four years of war service. At the outbreak of the war Mr. Cox enlisted in the British Army and was in constant service at the front until the signing of the Armistice. Mr. Cox will teach freehand and mechanical drawing, the life class for costume design, and also the new class in furniture design.

The department of mechanical drawing has been discontinued and its classes placed in the department of fine arts with Mr. Panuska and Mr. Cox as instructors.

Professor Alon Bement resigned in June to become head of the Maryland Institute of Fine Arts in Baltimore. The officers and friends of the department of fine arts of Teachers College, regret the loss. Professor Bement will have as chief instructor in design Miss Amy Drevenstedt, a graduate of Teachers College. Miss Drevenstedt was for some time an instructor in Hunter College until she entered war service in France where she was in the first group of reconstruction aides.

Professor Charles J. Martin will conduct the classes in advanced painting, and the course in design in the art industries. Professor Martin and Miss Sallie B. Tannahill were painting in Provincetown, Mass., during the summer.

Professor Grace A. Cornell will continue the courses of lectures for sales-people and buyers at the Metropolitan Museum.

Miss Belle Northrup will now have full charge of the classes in costume design and costume illustration.

Miss Ruth Wilmot, formerly one of our instructors in costume design, has accepted a position as director of art work for R. H. Macy & Company, New York City.

It will be remembered that Miss Tannahill's class in lettering designed and engraved a book entitled "Letters" to be sold for the benefit of the Alumni Scholarship Fund. These plates in color, printed from linoleum blocks on fine Japanese paper, have attracted wide attention. The sales have brought a substantial increase to the Scholarship Fund.

Miss Grace V. Bliss has been made associate advisor and curator of the collections of the department.

Mr. Albert W. Heckman will conduct the drawing and painting class for juniors, formerly in charge of Professor Martin; also the Saturday morning class in art structure.

Miss Belle Boas has returned to the Horace Mann School after a sabbatical year spent in art study and painting in California.

The courses in photography under Mr. Clarence H. White will be conducted at his new studio, 460 West 144th Street, New York City.

This year a new section of Fine Arts I, Art Structure, has been scheduled for Monday and Wednesday evenings. The instructor is Miss Elise E. Ruffini, a Teachers College graduate, who also is teaching the Saturday morning class in drawing and painting, and is assisting in fine arts education.

FOODS AND COOKERY

Miss Bertha E. Shapleigh, while still retaining her position at the College, is residing at the Teachers College Country Club as resident chairman of the house committee of the Club.

Miss Day Monroe has returned to the staff of the department after more than two years of war work at first in America with the Federal Food Board and later under the Young Women's Christian Association in Paris.

Miss Mary I. Barber has recently been added to the staff of the department of foods and cookery as an instructor. She brings to the work a great deal of experience in the demonstration field in connection with her activities in the extension work as well as the Food Conservation Campaign of the Food Administration.

Miss Alice Conway, formerly an instructor in the department of foods and cookery, has resigned her position to become a National Girl Scout Organizer. She took up her new duties in August at the National Headquarters in New York City.

Two new courses for graduate students have been added recently—(1) A Survey of the Courses in the Department, participated in by the various instructors; (2) The Economics of the City Food Supply, which opens an opportunity for research work in problems involved in the consumption of food in towns and cities. It considers the relations of various phases of the food problem, political and economic, to the teaching of cookery.

The courses concerned with investigation and research in cookery are being greatly developed and carried on with the coöperation of allied departments in the School of Practical Arts.

HOUSEHOLD AND INSTITUTION ADMINISTRATION

During the past ten years, many technicians in institution administration have been placed in positions, but the emphasis is now placed more on the special training for teachers and organizers of departments in institution administration. Recent appointments include that of Miss Ruth Lusby to take charge of the department of institution administration at the University of Washington, Seattle, and that of Miss Grace Rust to develop the work in institution administration at State College, Pennsylvania.

During the summer session, Professor Gunther called to the teaching staff the following former members of the department: Miss Nola Treat, who directs the institution department of the University of Minnesota; Miss L. E. Weer, from Russell Sage College; Miss Florence La Ganke, at present supervisor of household arts in Oakland, California; and Miss Eleanor Wells, social service dietitian of the Post Graduate Hospital.

Mrs. Marion Bell has been appointed assistant in housewifery and laundry at Teachers College for the present year. Mrs. Bell has had wide experience in extension work in the south. Miss Edla Lindholm, who has been teaching for the past two years at MacDonald College, has been appointed as an assistant in the department of household administration. Miss Anne Dudley, who is a candidate for the Ph.D. degree this year, has also been appointed assistant in the department to work especially with the graduate students in their investigation of administrative problems.

A bulletin, *Instruction in Institution Administration*, has just been issued for the department by the Bureau of Publications. It contains lists of thirty-seven schools and colleges which give courses in institution administration and also includes a brief outline of some of the courses and an annotated bibliography.

A bulletin on Home Laundering, called *Farmers Bulletin 1699*, just issued by the United States Department of Agriculture, has been prepared by Miss L. Ray Balderston.

Recent placements of students in institution administration include that of Helen Hankemeyer, assistant director, Henry Street Settlement, New York; Charlotte Page, assistant dormitory director, Wells College, Aurora, New York; Edith McAlpin, director of residence, Brooks Hall, Barnard College; Frances Requa, assistant director, Nurses' Home, New York Hospital; Lynne Sandborn, assistant organizer, Colonnade Food Company, Cleveland.

Miss Edith Crane has returned from a year and a half of service in Serbia as director of an orphanage, and will resume her duties as dean and director of residence, in the dormitories at the University of Kentucky, Lexington.

HOUSEHOLD ARTS EDUCATION

Professor Anna M. Cooley has returned from her sabbatical leave of absence. She has been living in England at Haslemere Surrey and enjoyed a short sojourn in France. Miss Cooley has been in touch with the English schools of home economics, and has visited the School of Domestic Science at Edinburgh. She attended the First International Conference of University

Women held at Bedford College, London, and visited King's College for women where she spoke to the home economics students on the scope of home economics in America.

Professor Cora M. Winchell has been appointed temporary chairman of the Committee on the Welfare of Students from Other Lands. Professor Winchell will be absent on leave during the spring session of this year.

Professor Wilhelmina H. Spohr will speak on some phase of household arts before the Kalmia Club of Lambertville, New Jersey, at one of its November meetings.

Miss Helen C. Goodspeed, formerly assistant in the department of household arts education, returned as instructor in the department for the summer session.

Miss Erica Christensen has been appointed supervisor of the educational work at the Chapel of the Incarnation, New York, for the coming year.

The department of household arts education believes that one of its most valuable opportunities for study in home and community needs is offered by the Morningside Nutrition and Homemaking Center, at 100 Lawrence Street. This work has been conducted during the past year, under the joint coöperation of Teachers College and the Charity Organization Society. The Red Cross has recently joined forces with the College and the Charity Organization Society in the enterprise. Students of household arts education conduct work with groups of women along homemaking lines, in response to the needs expressed by women comprising the groups. Participation in the work of the Center provides a basis for the extension of this type of work into other communities.

In order that household arts education students might have intensive work in a study of home and family life, the course in Practice in Home Making Adjustments was conducted during June for the second time under the supervision of a committee of which Professor Winchell is chairman and under the immediate direction of Miss Emma Winslow with the coöperation of the district secretaries of the Charity Organization Society and the Brooklyn Bureau of Charities. Through the courtesy of the Charity Organization Society, the course was opened to women throughout the country for training in home economics. Aca-

demic credit is given at Teachers College for this course to properly qualified students. The course was taken by 35 students, many of them women who will return to the teaching field. A group of nurses who attended lent interest to the work.

The course included intensive field work and family visiting under the direction of the district secretaries, work in the teaching of nutrition classes with the "follow up" work which renders such teaching most effective, and service in connection with hospital clinics. In addition to these phases of the work, lectures, conferences, and round tables were conducted by Miss Winslow and representatives from social agencies.

This work is considered of great value in the training of teachers by the department of household arts education since it affords contacts with social agencies which should be of assistance in improving home conditions, and because of the unusual opportunity it gives to study living conditions as a means of rendering the teaching of home economics more effective.

HOUSEHOLD ECONOMICS

Professor Andrews gave two addresses in October before the Farmers' Week Conference at the New York State School of Agriculture at Morrisville on "Organized Family Finance" and "The American Home." He also spoke before the New Haven Women's Club.

There has just come from the press the first volume of a Family Life Series, edited by Professor Andrews, in a book entitled *Clothing—Choice, Care, Cost* by Mrs. Mary Schenck Woolman, formerly professor of domestic art in Teachers College. The series is being issued by Lippincott who also publish the Home Manual Series, edited by Professor Andrews. The Home Manuals have become accepted text-books in higher institutions. The new Family Life Series is intended for women's clubs, study groups, extension classes in adult education, and as general reading and reference books.

The new major subject in household economics and social science, which was announced by the School of Practical Arts this year, has attracted to the College a number of students interested in fitting themselves to do social work in terms of

special service in household arts. Some of these students come with practical experience in Red Cross and other forms of social work and plan to equip themselves especially in nutrition, food economics, and the general economics of the household, so that they will be competent to undertake the newer forms of child health work, or budget consultancy, family readjustment work with charity organizations, and other social work. It is evident that the College has here a special field of professional service which is calling for trained workers who have both a general foundation for social work and also specialized training in household arts. The major subject is under the general direction of Professor Andrews associated with Miss Emma A. Winslow, who has given instruction in social work in household arts in Teachers College for a number of years.

NURSING AND HEALTH

Professor Isabel Stewart has collaborated with Miss Dock in the preparation of a *Short History of Nursing* for use in training schools, which is an abbreviated edition of the four volume *History of Nursing* by Nutting and Dock, published by Putnam's.

A small manual on *Nursing Mental Diseases* by Harriet Bailey, a student in this department in 1909, has just been issued by The Macmillan Company. This manual is much needed and is one of the first to come from an actual worker in this field.

Bacteriology for Nurses, by Mary A. Smeeton, class of 1914, has been issued recently by the same publishers. Following her work here, Miss Smeeton was instructor in bacteriology in New York University and Bellevue Medical School, and bacteriologist of the International Health Board, France.

Miss Elizabeth Burgess has been appointed lecturer on the nursing and health staff. Miss Burgess was a student here in 1909–1912 and after some years as training school superintendent became inspector of training schools for nurses in New York State under the Department of Education. Her recent appointment as secretary of the State Board of Examiners requires her presence part of the time in New York City and enables us to secure her valuable assistance.

During the summer session 192 students registered in the department. Among the students were Miss Flora Shaw, class of 1906, who has been asked to open up the courses for graduate nurses at McGill University, and Miss Kathleen Russell, a graduate of Toronto University, who has been appointed director of the public health nursing courses at Toronto University.

The convention of occupation therapy workers recently held in Philadelphia was well attended and proved successful. Several eminent physicians urged strongly the importance of the work in this field and the extension and improvement of training courses for workers, since the demand for those bringing a high degree of preparation far exceeds the supply. Miss Susan Johnson presented a paper dealing with training methods.

Miss Goodrich presented a paper at the convention of the American Hospital Association in Montreal in October on "The Preparation of Student Nurses for Public Health Nursing."

A Central Nursing Headquarters has recently been opened at 156 Fifth Avenue by the three National Associations of Nurses coöperating for the present with the Red Cross department of nursing. Its purpose is to provide a permanent centre for the activities of these associations which now have a membership of many thousands; and to deal with the work and problems of hospitals and training schools, public health nursing in its various branches, and in fact the entire professional field. The Headquarters has opened with two offices, constituting a Bureau of Advice, Information and Placement. The plans call for a Bureau of Publications which will include the nursing journals, also for executive offices for the three associations, a library and reading room, such a centre in fact as modern progressive professional bodies require.

Miss Sara Parsons, class of 1905, has resigned from the superintendency of the Massachusetts General Training School for Nurses and is making a survey of the training schools of Missouri and other states.

Miss Mary Robinson, class of 1919, formerly superintendent of nurses at the Army Hospital, Fox Hills, Staten Island, has been appointed superintendent of nurses and principal of the training school at Long Island College Hospital, Brooklyn.

Miss Helen Bridge, class of 1912, has returned from Siberia where she worked with the Red Cross, and has been appointed educational director of the Illinois Training School, Chicago.

Miss Laura Grant, a student here in 1920, has been appointed superintendent of nurses and principal of the training school at City Hospital, Cleveland. Miss Grant was acting inspector of training schools in California during the year 1918.

NUTRITION AND FOOD ECONOMICS

During the summer session four nutrition classes were maintained by the students registered for field work. One class met at Stuyvesant House, on the lower east side, where a similar class was maintained last summer. It comprised about fifty children, mostly Jewish, who were attending the Summer Play School at the settlement, and who had been classified as malnourished at their physical examination in June. The children had a noon-day meal and an afternoon lunch at school, and the students had an opportunity to watch the effect of this school feeding on undernutrition, as well as to instruct the children about health and particularly foods.

Three classes were maintained at the Morningside Nutrition and Homemaking Center near Teachers College at 100 Lawrence Street. The center is conducted by the Home Economics Committee of the Charity Organization Society in coöperation with Teachers College. It is organized as a training school in which properly qualified students of home economics may gain experience in making practical application of their technical work to community problems. Here the students of nutrition learn methods of organizing and conducting nutrition classes, methods of utilizing the resources of the community for the improvement of the child's health, and methods of approaching the home and securing its coöperation.

The three classes were chosen to afford experience with groups of children of different ages, one being composed of children from six to eight years old, and the others of children from nine to twelve. Of these two one had been maintained throughout nine months preceding the summer session, the other comprised children recently gathered together. None of these groups contained Jewish children.

In addition to these classes, the students assisted in the Red Cross Nutrition Center in Brooklyn of which Mrs. Gertrude Gates Mudge, formerly an instructor in this department and Miss Anne McCormick, recently a graduate of Teachers College have charge, and in the Red Cross Nutrition Center in the Bronx, where Miss Bertha Edwards, also a former student, is in charge of the nutrition work.

These various groups of children afforded a variety of experiences in this new and rapidly developing field of work, for which trained people are much in demand.

The work of the Morningside Center will be greatly strengthened this fall by the coöperation of the New York County Chapter of the American Red Cross. This chapter is also interested in the training of nutrition workers, and wishes to participate in the experimental work of the Morningside Center. It will establish a Child Health Center in the same neighborhood with an expert nutrition worker, Mrs. Mudge in charge. This program will not only give new medical and dental assistance, but will extend to students the privilege of working in the Red Cross classes under Mrs. Mudge's supervision.

The facilities for research in the nutrition department have been increased by the acquisition of a Benedict respiration apparatus. Two students are now learning the technic of determination of basal metabolism, with a view to the study of metabolism of young girls, a field which has been little investigated.

Studies of the nutritive value of the almond, which have been in progress the past year, will be continued.

A second series of experiments in the digestibility of raw egg white has been carried on since the first series was reported to the Society for Experimental Biology and Medicine (see Proceedings of the Society for March 17, 1920, page 119). The results confirm the earlier report that raw egg white is well digested in human subjects.

PHYSIOLOGICAL CHEMISTRY

Dr. Casimir Funk, who discovered vitamines, Dr. R. R. Williams, formerly of the Bureau of Chemistry and now with the

Western Electric Company, Professor McKee of Columbia, and Professor Eddy are coöperating in research work in the chemical nature of vitamines, which will be actively pursued during the present year.

Through the generous interest of Dean Russell, Miss Helen Stevenson has been given an opportunity to continue the research work in vitamines which was begun last year. The work then dealt especially with a new test for vitamine content. The results of the research appeared in the proceedings of the Society for Experimental Biology and Medicine, and also in the August number of the *Journal of Biological Chemistry*.

A review covering the literature of vitamines prepared by Dr. Eddy was published during the past year in *Bacteriological Abstracts*. This review was devised to aid students in this subject and is being used as text material for that purpose.

Investigation of the nutritive deficiencies and values of a farinacious cereal, which is part of a program of investigation of the proper use of cereals in infant feeding, begun last year will be continued in coöperation with the department of foods and cookery. Research work is in progress in recipes for fondant making, peanut meal utilization, and frying fats.

Plans have been made for coöperation with the department of household chemistry, whereby the course in quantitative methods known as Household Arts 121 will become a prerequisite of the course in Methods of Biochemical Analysis—Biochemistry 153, thus permitting further development in the latter field.

Miss Helen McKnight and Miss Ruth M. Johnson have been appointed assisting scholars in the department for the present academic year.

PHYSICAL EDUCATION

The department of physical education has initiated two new courses supplying a type of training that cannot be given in the city. These courses are given in June and September at Camp Mesacosa, Corinth, N. Y. The first session of the course met in September of this year. Forty-five physical education students were in attendance. Dr. Williams was in charge of the course and was assisted by Miss Sheffield, Miss Cubberley, Miss Beam, Mr. Gucker, Mr. Dambach and Mr. Thrall.

The students were given instruction in hockey, soccer, tennis, swimming, horseback riding, camp and wood craft, hikes and overnight trips. Dr. Williams gave a series of lectures on the development of the camp idea, camp motives and ideals.

Dr. and Mrs. Wood visited the party for three days and report the new course a distinct success.

Mr. John Dambach, a graduate student in physical education last year has accepted the directorship of the department at the George Peabody College for Teachers.

Mr. Frank Oktavec is director of physical education at Spring Valley, New York.

RURAL EDUCATION

The rural education department during the summer session enrolled the largest number of students in its history. Several classes showed an increase of a hundred per cent over any preceding summer. The increasing professionalization of the rural school superintendency has led to a demand for summer work especially fitted to the needs of this field. To satisfy this demand a new three point course was given for county superintendents, and a week's County Superintendents' Conference was held, consisting of special lectures, personal conferences, and round table conferences. The speakers at the Conference included Professor O. G. Brim, of the rural education department of Cornell University, Mr. Z. E. Scott, formerly state supervisor of elementary education in New Jersey, and Professor Bagley, Professor Strayer, and Professor Engelhardt of the Teachers College Faculty. There was excellent attendance at the Conference, which was generally pronounced a helpful and desirable feature of the summer's work. The supervision of rural schools, as a function distinct from administration, is being emphasized more and more, as was indicated by a much larger enrollment in this field than in preceding years.

The development of rural education throughout the country is indicated not only by the increasing interest in rural professional courses, but by the number of calls for graduates of our department. It has been impossible to supply all the demands which come from widely separated fields in many states.

Miss Delia Keeler and Miss Louise Lynd returned to the rural departments of the normal schools in Bellingham, Washington, and Tempe, Arizona, respectively, and Miss Julia Stone went back to Hayes, Kansas, to develop there the department of rural extension. Miss Lydia Rademacher was appointed a member of the rural education staff of the Aberdeen, South Dakota Normal School, and Mrs. Hetty Browne was appointed to head a new department of rural education at Bloomsburg, Pennsylvania. Mr. E. C. Higbie has been made president of the normal school at Madison, South Dakota, and is developing a rural department there with the aid of Miss Maude Kavanagh. Dr. O. G. Brim was appointed to a professorship in rural education at Cornell University. Miss M. Madeleine McDonnell will direct normal training work in Porto Rico. Miss Eva Duthie is organizing recreation work in Czecho-Slovakia. Mr. Chester Snell is associated with the State Committee of the Y. M. C. A. of North Carolina, and is working on community development. Miss Elizabeth Keppie and Miss Jennie McGuffey are carrying on Americanization work, the former with headquarters at Sacramento, the latter at Camp Lewis, Washington. Miss Annie Moore is county home demonstration agent at Florence, South Carolina. Miss Marcia Everett and Miss Rachel Fuller are helping teachers in New Jersey, the former in Warren County, the latter in Morris County. Miss Cassie Spencer is supervising a rural county in New Mexico.

A number of former students have returned to college this year, including Miss Etta Christensen, Miss Elizabeth Eckhardt, Miss Adelaide Ayer, Miss Grace Shepherd, Mr. Kamba Sinango, Mr. J. R. Malan, and Mr. Marvin Pittman. The department hopes to hear from others of its alumni as to their location and their work.

Two new courses are offered this year. A field course that promises to be very popular enables former students of the department to work out in their own localities problems either in rural community work, rural teacher training, or rural supervision. This course makes it possible to carry through an extended project in a rural setting with the coöperation and guidance of the rural education department. The other course, a practicum in rural community organization, is offered for those

engaged in all phases of rural social work. This is a field which is growing and becoming increasingly important. It includes recreational, religious, and health work, and adult education of various types.

SECONDARY EDUCATION

Following a pleasant custom the professors and students interested in secondary education held their opening "get-together meeting and picnic" on the Palisades the second week of the session. There was a one hundred per cent participation: everybody hiked, everybody cooked over the seven cooking fires, everybody was hungry, everybody was in a woodsy, outdoor frame of mind, and after the supper everybody seemed satisfied. Around the camp fire all sang or pantomimed the songs, which were led by Professor Fretwell. Professor Briggs made the only speech of the occasion. He pointed out that in Dr. Sachs, Teachers College had the first professor of secondary education in the world, and showed what is being done and what can be done. Everyone gained a keener vision from his talk, as well as the desire to aid in solving the interesting and increasingly complex problems in the field of secondary education.

The committee in charge of the picnic was composed of Velma Tisdale of Georgetown, Tex., Ethel A. Rollinson of Salem, Mass., Maud C. Sisson of Hawaii, Elmer Garinger of Springfield, Mo., C. P. Finger of Oakland, Calif., Mercy Hays of Detroit, Mich., and A. D. Whitman of New Bedford, Mass.

Professor Briggs has been elected vice-president of the New York Society for the Experimental Study of Education.

Dr. Truman Lee Kelley, assistant professor of education, who for the past three years has been giving the courses in advanced statistics and in measurements as applied to secondary education, has accepted a temporary appointment as professor in charge of courses of educational measurements and advanced statistics in Leland Stanford University. Professor Ruger is giving the course in advanced statistics and Professor Trabue that in educational tests and measurements in the secondary school.

Professor Fretwell will speak at the North Dakota State Teachers' Association this month.

At the Speyer School the new pupils have been classified again by the Otis tests into groups homogeneous with respect to ability. After beginning work they were also given the tests newly devised by the National Research Council to check the accuracy of classification and to discover boys who had made erratic scores. This work is being done by the seminar class in the department of secondary education.

Mr. Wilfred M. Aikin, principal of the Scarborough School, founded by Mr. F. C. Vanderlip, spent several weeks last summer in Great Britain studying the forces at work for improving international amity. Mr. Aikin made a report on his trip to the Secondary Club at its October meeting, indicating the part that must be played by American high schools in forwarding the movement.

The papers presented before the secondary education section of the 1920 Alumni Conference have been reprinted from the TEACHERS COLLEGE RECORD in a monograph entitled *The Professional Training of the High School Principal*, published by the Bureau of Publications. The monograph includes: "Why Principals Succeed and Why They Fail," by Mr. A. B. Meredith, assistant commissioner of education for New Jersey; "What I Should Like to Have Known Before I Became a Principal," by Mr. C. C. Tillinghast, principal of the Horace Mann School for Boys; and "What Professional Training a High School Principal Should Have," by Dr. Frank V. Thompson, superintendent of schools, Boston, Massachusetts.

The following contributions have been made recently to educational magazines by Professor Briggs: "Intelligent Loyalty," *School and Society*, June 20; "The Public Museum and Art Gallery of Reading, Pennsylvania," *School and Society*, September 25; "A Composite Definition of the Junior High School," *Educational Administration and Supervision*, April; "A Study of Comparative Results in Intermediate and Elementary Schools of Los Angeles," *Journal of Educational Research*, November; "Results of the Bell Chemistry Test," *Journal of Educational Psychology*, April; and "Provisions for Abilities by Means of Homogeneous Groupings," *Third Yearbook, National Association of Secondary School Principals*, 1919–20.

The Junior High School by Professor Briggs has recently been published by the Houghton Mifflin Company.

Miss Edith Barnard, instructor in English in Mount Pleasant, Mich., Normal School, now on leave of absence, has been appointed assistant to Professor Stevens for the present academic year.

Miss Sarah M. Sturtevant, an assistant in the department of secondary education during 1919–20, has been appointed the dean of girls in the Practice School of the University of California and instructor in the University.

Among other interesting appointments of students who were in the course for advisers of women and girls during 1919–20 are the following:

Miss Mary Green, dean of women, Rockford College, Rockford, Illinois; Mrs. Mary Barbour Walker, dean of women, William Smith College, Geneva, New York; Miss Elizabeth Bache, adviser to girls and professor of home economics, Rhode Island State College, Kingston, Rhode Island; Miss Arleigh Bunting, dean of girls, Milwaukee-Downer preparatory department; Miss Ruth Reed, instructor in English and director of student activities, Cornell College, Iowa; Miss Irma Hathorn, dean of women, State Normal School, River Falls, Wisconsin; Miss Emma Noonan, dean of girls, central High School, San Francisco (on leave, 1919–20); Miss Grace Hicks, dean of girls, High School, Scranton, Pennsylvania (on leave, 1919–20); Miss Margaret Law Pearson, social director, Church House, Miami, Ohio; Miss Minnie Smith, dean of girls, Castilleja School, Castilleja, California; Mrs. Kellicott, house director of the Parnassus Club, New York City; Miss Bertha M. Ronan, dean of women, Central Michigan Normal School, Mt. Pleasant, Michigan; (on leave 1919–1920); Miss Edna Voss, in charge of educational work of the schools of the Presbyterian Board of Home Missions; Mrs. Elizabeth L. Ware, dean of women and head of English department, State Normal School, Albion, Idaho.

TEXTILES AND CLOTHING

Prior to the summer session, Mrs. Nelson gave a short course in millinery to a class of county home demonstration agents in Greensboro, North Carolina.

Miss Baldt spoke at a general conference at the Michigan Agricultural College on children's clothing, returning in time for summer session registration. Professor Fales gave a course in textiles at the summer session of the New York University. The enrollment in the textiles and clothing department for the summer session exceeded that of all previous years. The millinery classes were especially popular, outgrowing their classroom and forming two extra sections. The enrollment in the department this fall is gratifying. Large sections are being carried in elementary dressmaking, children's clothing, and applied dress design. The instructors are kept busy in the latter section by the 30 students in the group each of whom designs a series of garments for co-workers.

Mrs. Tobey is absent on leave for the first semester. Her class is being taught by Mrs. Smith.

Miss Ruth Scott, a former student, is in charge of special dressmaking classes this year.

Miss Marion Webb, a graduate student, is teaching a class in elementary clothing and hand work on Saturdays. On four mornings each week she teaches millinery and dressmaking at the Commonwealth School.

VOCATIONAL EDUCATION

An inquiry has been sent out by Professor Dean relative to offering an intensive "summer course in the winter" in the administration of vocational education. The inquiry was mailed to one hundred state directors and city supervisors, as well as to the national leaders of vocational education who hold federal positions. The replies show, without exception, that there is a very great demand for such a course. A special circular regarding the course will be sent on application. The course will be given between January 20 and February 20, and will close in time for attendance at the N. E. A. and National Society of Vocational Education meetings at Atlantic City.

Professor Dean has been closely associated with the recent survey of the prisons of New York State. This study of present conditions and future needs was ordered by Governor Smith under the direction of the Prison Survey Committee of which

Mr. Adolph Lewisohn was chairman. The report covers four hundred and four pages and includes studies of educational and vocational training, self-government of prisoners, pardon and parole, prison made goods, and wage incentives.

The department has been in consultation with administrative heads of several school systems with reference to making surveys of a possible vocational education program.

Professor Dean is associate editor of the *Manual Training Magazine* and is contributing this year a series of editorials on the fundamental aspects of vocational education as it may be presented to the public mind.

The new courses in vocational education which deal with the question of fitting vocational work into the general high school and the junior high school are proving to be very popular. Coming as they do on Friday nights and Saturday mornings they are convenient for the teachers of the Metropolitan area.

THE LINCOLN SCHOOL

The following new appointments to the faculty of The Lincoln School have been made for the year 1920–1921:

John R. Clarke, teacher of mathematics; Eva M. Davis, teacher in elementary department; Elsie May Flint, special teacher of science; Katherine Keelor, second grade teacher; Mary Mason, assistant in English; Hughe Mearns, teacher of English and literature; Pauline H. Miner, first grade teacher; Vera Sanford, special teacher in high school; Laura Zirbes, special investigator in reading; Mrs. Berthe S. Bullard, assistant in French; Cecile Collotton, assistant to educational psychologist; Jessie Kneeland, assistant in library; Josephine V. Muessen, assistant in playground work; Harrison Trowbridge, part time assistant in physical training for boys.

A booklet has been issued entitled, *Illustrated Mathematical Talks* prepared by pupils of the Lincoln School. It comprises talks given by pupils before the Parents–Teachers Association, upon the various types of mathematics work done in the high school classes. Stenographic reports were taken of the children's talks. The illustrated material used was taken directly from the classroom work in mathematics, or in other subjects in which work in mathematics was used. This booklet has

recently been published and may be secured from the school by sending the cost price which is fifty cents.

The annual report of the educational psychologist shows that the mental ages of the pupils in the Lincoln School are distinctly above those of the children of corresponding grades in the public schools. They are almost exactly the same as those of other schools of this type, such as the Horace Mann School and the University of Chicago Elementary School. It seems that the class of people who select such schools for their children are clearly those whose children inherit somewhat better than average abilities.

The General Education Board has contracted with an architect to prepare the building plans for a new Lincoln School. The architect has been working for months to secure the best possible distribution of space and is now putting the final plans into detailed form. The plans are a result of a conference of the architect with teachers of the school and Professors Strayer and Englehardt and others of Teachers College, and are made in the hope that the physical equipment of the new school may be an important contribution to this phase of pure educational work.

HORACE MANN SCHOOL

The following additions to the staff of the Horace Mann School have been made for the year 1920–1921: Theresa F. Wild, music; Earle V. Rugg, history; Berthe E. Clement, French; Marie T. Fortier, French; Grace Reeves, household arts; Edna Gleason, household arts; Ruth Atkinson, physical education; Mary Shafer, physical education; Louise Scott, fine arts; and George Keeler, fine arts.

Mme. Berthe M. Costikyan and Miss Mary B. Gillmore are on leave of absence for the year.

The promotion and classification of the pupils in the elementary school for this session has been given special attention. The collection of data as to the general intelligence of the pupils by the school psychologist, and the standard educational tests, have made possible a closer estimate of the real ability of pupils than heretofore. With the assistance of members of the staff of the College who are especially interested, a general program

was developed, and group tests of intelligence and standard tests in reading and arithmetic were given from the third to the sixth grade. The intelligence quotients derived from the Stanford Revision of the Binet test were also available for a large number of the pupils. Finally the teachers were asked to rank the children in order of their ability to do the work of the next grade. These measures were all turned into mental ages and the individuals' composite mental age was determined. On the basis of this information the children of grades I–VI were placed in groups so that each group would be as homogeneous as the school organization allowed. The composite mental ages of the children showed that placement in the school for the past year had caused differences in a single room as high as four mental years. The overlapping of one grade upon another, however, was comparatively slight. No grade overlapped the median of the next higher grade by more than 11% and one overlapped by only 2%. The records of achievement were of great assistance in dealing with the problem of placement especially in questions arising between the school and the parents.

MEN'S DINNER

Despite the efforts of the Weather Bureau to frustrate the plans of J. E. Marshall and his lieutenants, the annual Men's Dinner of the Summer Session on August fourteenth suffered no dampening of enthusiasm or ardour. The Horace Mann School for Boys at 246th Street offered a refuge from a severe storm. Earlier in the day, however, Professor Fretwell, director of play activities, with assistants Wardlaw and Morrison, and field captains Engelhardt, Evenden, McNally, and Segal led four groups in various athletic activities. The efficiency of Connor's K.P. staff seemed unimpaired by wet clothing. The appetites of 550 hungry club members proved a fervent testimonial of their culinary abilities. At 7:00 P.M. the group convened in the auditorium where Toastmaster Hertzog presented a program of addresses by: Dean Russell; Superintendent John G. Rossman, Stuttgart, Ark.; Professor William C. Bagley; Superintendent A. L. Threlkelde, Chillicothe, Mo.; Professor George D. Strayer. Music under the direction of Professor E. K. Fretwell.

The central committee in charge of the Men's Dinner was as follows: James E. Marshall, St. Paul, Minn., chairman; J. R. McGaughy, Belle Center, Ohio; W. L. Conner, Republic, Mich.; Merle C. Prunty, Tulsa, Okla.; L. W. Burns, Wheeling, W. Va.; L. H. Dennis, Harrisburg, Pa.; J. T. Giles, New York City; R. C. Hill, Colorado Springs, Colo.; George C. McCord, Springfield, Ohio; H. B. Bruner, Okmulgee, Okla.; Frank C. Densberger, Kenmore, N. Y.

TRUSTEES

At the meeting of the Executive Committee of the Trustees on Thursday, October 14, Miss Grace A. Day and Miss Annie E. Moore were promoted from instructorships to assistant professorships in Elementary Education.

Mr. Francis A. Collins was appointed editor of Teachers College publications. Mr. Collins has been engaged in editorial work for both the *New York Times* and the *New York Herald*, and is a contributor to *The Century*, *Review of Reviews*, *Outlook*, *Bookman*, etc. He is the author of several books published by The Century Company.

Professor Alon Bement has withdrawn from the College to take over the direction of the Maryland Institute at Baltimore. Professor Bement has been connected with the department of Fine Arts since 1907, first as instructor and later as assistant professor. His resignation was accepted with regret. The good wishes of his colleagues go with him into this larger field of influence.

The Trustees appointed a committee to take charge of the College's campaign for securing funds for the Library Building and for further endowment. Members of the committee are: From the Board of Trustees—Mrs. Willard Straight, Mrs. Joseph R. Swan, and the officers of the board: Messrs. V. Everit Macy, Mr. Frank R. Chambers, Mr. Clark Williams, Mr. Arthur Turnbull, and Mr. Dunlevy Milbank. From the Alumni: Professor Milo B. Hillegas, Professor Nickolaus L. Engelhardt, Professor Mabel Carney, and three others who will be appointed directly by the Alumni Association.

ALUMNI ACTIVITIES

ENDOWMENT CAMPAIGN INAUGURATED

The Executive Committee in charge of the endowment announces that a campaign has been inaugurated to raise a large endowment for Teachers College. The General Education Board has appropriated the sum of one million dollars for Teachers College contingent upon the College raising two million dollars. The sum of one million dollars has already been pledged. In view of the urgent need of Teachers College for funds to enable it to maintain its dominant position, it has been decided that an effort be made to raise an endowment sufficient for it to realize its plans. A critical period has been reached. The influence of Teachers College upon the educational system of the country and upon many foreign students in the next generation will be determined largely by the amount of money raised in the coming year. It is believed that if the great work performed by Teachers College can be brought to the attention of those interested in the developments of the educational system in America, an adequate response will be obtained.

No appeal for funds is made to the alumni of Teachers College. The salaries of teachers are notoriously inadequate. The alumni nevertheless can be of great assistance to the College in raising an endowment. Every member of the alumni will be asked to suggest the names of people who may contribute to this fund, and of those who in turn can influence contributions. In pursuing the campaign, letters explaining the situation in detail will be addressed to all former students of Teachers College. It is hoped that any one who fails to receive these communications will inform the Endowment Committee supplying them with the correct address. It is planned to organize committees in various centers throughout the country and to engage the interest of associations already formed. The alumni of Teachers College have repeatedly evidenced their spirit of loyalty and devotion. The trustees have the utmost confidence in the outcome of this campaign.

The Executive Committee in charge of the endowment campaign includes from the Board of Trustees: Mrs. Willard Straight, Mrs. Joseph R. Swan, and the officers of the board: Messrs. V. Everit Macy, Mr. Frank R. Chambers, Mr. Clark Williams, Mr. Arthur Turnbull, and Mr. Dunlevy Milbank; and from the Alumni: Professor Milo B. Hillegas, Professor Nickolaus L. Engelhardt, Professor Mabel Carney, and three others who will be appointed directly by the Alumni Association.

Communications may be addressed to the Executive Committee in charge of the Endowment Campaign, Teachers College, 525 West 120th Street, New York.

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